FEDERAL AVIATION ADMINISTRATION

AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT

BIWEEKLY 2000-11

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U.S. Department of Transportation
Federal Aviation Administration
Regulatory Support Division
Airworthiness Programs Branch, AFS-610
P. O. Box 26460
Oklahoma City, OK 73125-0460
FAX 405-954-4104

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.

Biweekly 2000-01

99-27-01		Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219
99-27-03		Fokker	F27 Mark 050 Series
99-27-04		Rolls-Royce	Engine: Dart 506, 510, 511, 514, 525, 526, 529, 530, +
99-27-05		Boeing	767-200, -300, and -300F Series
99-27-06		Boeing	757-200, -200PF, and -200CB Series
99-27-07	S 98-25-53	Airbus	A300 B4-600R and A300 F4-600R Series
99-27-08		SAAB	SAAB SF340A and SAAB 340B Series
99-27-09		Airbus	A300 B4-203 Series
99-27-10		Airbus	A310 and A300-600 Series
99-27-11		British Aerospace	BAC 1-11 200 and 400 Series
99-27-13		Fokker	F27 Mark 050 Series
99-27-14	S 99-01-15	Airbus	A340-211, -212-, -213, -311, -312, and -313 Series
99-27-15		General Electric	Engine: GE90-76B, -77B, -85B, -90B, and -92B
99-27-16		CFE	Engine: CFE738-1-1B
2000-01-51	E	Bombardier	CL-600-2B16 (CL-604)

Biweekly 2000-02

98-19-15 R1	R 98-19-15	Fairchild	SA226-T, SA226-T(B), SA226-AT, SA226-TC +
99-26-21		Boeing	737-300, -400, -500, -600, -700, and -800 Series
2000-01-01		Airbus	A300 B2-1A, B2-1C, B2-203, B2K-3C, B4-103, B4-2C +
2000-01-02		Raytheon	BAe.125 Series 1000A and 1000B and Hawker 1000 Series
2000-01-03		SAAB	SAAB 2000 Series
2000-01-04		SAAB	SAAB 2000 Series
2000-01-07		Bombardier	DHC-8-100, -200, and -300 Series
2000-01-08		British Aerospace	ATP
2000-01-09		General Electric	Engine: CJ610 Series and CF700 Series
2000-01-12	S 97-14-11	Bombardier	CL-600-2B19 (Regional Jet Series 100) Series
2000-01-13	S 99-08-12	Pratt & Whitney	Engine: JT9D-7, -7A, -7H, -7AH, -7F, -7J, -20, -20J +
2000-01-14		Boeing	777 Series
2000-01-15		Fokker	F27 Mark 050 Series
2000-01-17		McDonnell Douglas	MD-90 Series
2000-01-18		McDonnell Douglas	DC-8 Series
2000-01-51		Bombardier	CL-604 variant of Canadair Model CL-600-2B16 Series
2000-02-01		McDonnell Douglas	DC-8 Series
2000-02-02		Short Brothers	SD3-60 SHERPA, SD3-SHERPA Series and SD3-30 Series
2000-02-03		Boeing	737-300, -400, and -500 Series
2000-02-04		Airbus	A300 Series, A300-600, and A310 Series
2000-02-13		Bombardier	DHC-8-100, -200, and -300 Series

Biweekly 2000-03

99-26-03	COR	McDonnell Douglas	MD-11 Series
2000-02-05	S 98-24-01	British Aerospace	Jetstream 4101
2000-02-06		Bombardier	DHC-8-100, -200, and -300 Series
2000-02-07		Bombardier	DHC-7-100 Series
2000-02-08		Dornier	328-100 Series
2000-02-10		Boeing	747 Series
2000-02-11		Boeing	777-200 Series
2000-02-15		Raytheon	65-90, 65-A90, B90, and C90
2000-02-17		Rolls-Royce	Engine: RB211 Trent 768-60, 772-60, and 772B-60 Series
2000-02-18	S 97-09-14	Boeing	737-100, -200, -300, -400, and -500 Series

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Biweekly 2000-03...Cont'd

2000-02-19	S 90-02-16	Boeing	727 Series
2000-02-20	S 95-13-12 R1	Boeing	767 Series
2000-02-21		British Aerospace	Jetstream 4101
2000-02-22		Boeing	747-400 Series
2000-02-23		McDonnell Douglas	DC-9-10, -20, -30, -40, and -50 Series and DC-9-81, +
2000-02-24		Airbus	A300, A310, and A300-600 Series
2000-02-33		Boeing	747-400 Series
2000-02-34		Bombardier	CL-600-2B19 (Regional Jet Series 100) Series
2000-02-35		Raytheon	DH.125, HS.125, BH.125 Series 1A, 1B, 3A, 400A, +
2000-02-36	S 98-20-10	Airbus	A319, A320, and A321 Series
2000-02-37		Boeing	747 Series
2000-02-38	S 91-20-07	Airbus	A300, A300-600, and A310 Series
2000-03-01		Boeing	747-100 and -200 Series
2000-03-02		General Electric	Engine: GE90-90B, -85B, and -76B Series
2000-03-03		General Electric	Engine: CF34-3A1 and -3B1 Series

Biweekly 2000-04

99-23-26 R1		General Electric	Engine: CF34-1A, CF34-3A, -3A1, -3A2, and CF34-3B +
2000-02-27		Embraer - Empresa Brasileira	EMB-110P1 and EMB-110P2
2000-02-39		Airbus	A300 Series
2000-03-04		General Electric	Engine: CF6-80C2 Series turbofan
2000-03-05		Boeing	737-200 Series
2000-03-07		Rolls-Royce	Engine: RB211-524H-36 Series turbofan
2000-03-08		McDonnell Douglas	MD-90-30
2000-03-10		McDonnell Douglas	MD-11 Series
2000-03-11		McDonnell Douglas	MD-11 Series
2000-03-12		McDonnell Douglas	MD-11 Series
2000-03-13		McDonnell Douglas	MD-11 Series
2000-03-14		McDonnell Douglas	MD-11 Series
2000-03-15		McDonnell Douglas	MD-11 and MD-11F Series
2000-03-16		McDonnell Douglas	MD-11 Series
2000-03-17	S 97-23-01	Fairchild	SA226 and SA227 Series
2000-03-20		Airbus	A300-600
2000-03-21		Boeing	767
2000-03-22		Boeing	747-100, -200, and 747SP Series
2000-04-02		Boeing	737-100, -200, -300, -400, and -500 Series
2000-04-03		McDonnell Douglas	DC-3 and DC-4 Series
2000-04-04		Fokker	F.28 Mark 0070 and 0100 Series
2000-04-05		Israel	Astra SPX Series
2000-04-06		Airbus	A319, A320, and A321 Series
2000-04-07		British Aerospace	ATP
2000-04-08		Boeing	737-200C Series
2000-04-09		Embraer - Empresa Brasileira	EMB-135 and EMB-145 Series
2000-04-10		Hoffmann	Propeller: HO27( ) and HO4/27 Series
2000-04-11		Airbus	A319, A320, and A321 Series

Biweekly 2000-05

98-21-21	R1	Bob Fields Aerocessories	Appliance: Electric inflatable door seals
2000-03-51		McDonnell Douglas	DC-9, MD-90-30, 717-200, and MD-88
2000-04-13		Aerospatiale	ATR72 Series

LARGE AIRCRAFT

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Biweekly 2000-05...Cont'd

2000-04-14		General Electric	Engine: CF6-80C2 A1/A2/A3/A5/A8/A5F/B1/B2/B4/B6 +
2000-04-17		Boeing	747-100, -200, and -300 Series
2000-04-18		Boeing	757 Series
2000-04-19		Dassault	Mystere-Falcon 50 Series
2000-04-22		Rolls-Royce	Engine: RB211-524G2-T-19, RB211-524G3-T-19, +
2000-04-23		Dornier	328-100 Series and 328-300 Series
2000-05-09		Boeing	757-200, -200PF, and –200CB Series
2000-05-10		General Electric	Engine: GE90-85B Series turbofan

Biweekly 2000-06

2000-03-03	COR	General Electric	Engine: CF34-3A1 and -3B1 Series turbofan
2000-04-24		Honeywell International	Appliance: 36-300(A), 36-280(B), and 36-280(D) Series
2000-05-01		McDonnell Douglas	MD-11 Series
2000-05-02		Fokker	F27 Mark 050, 200, 500, and 600 Series
2000-05-04		Airbus	A330 and A340 Series
2000-05-05		Construcciones Aeronauticas	CN-235-100 and CN-235-200 Series
2000-05-07		Airbus	A300 and A300-600 Series
2000-05-08		Airbus	A319 and A321 Series
2000-05-14	S 80-22-53	AlliedSignal	Engine: ALF502 and LF507 Series turbofan
2000-05-18		Airbus	A300, A310, and A300-600 Series
2000-05-19		Boeing	727 Series
2000-05-20		Dassault	Fan Jet Falcon, Mystere-Falcon 20, 50, 00, and 900 Series +
2000-05-21		Airbus	A319, A320, A321, A330, and A340 Series
2000-05-24		Honeywell International	Appliance: KAP 140 or KFC 225 autopilot system
2000-05-25	S 96-14-09	British Aerospace	BAe 146-100A, and -300 Series
2000-05-26	S 93-18-04	Aerospatiale	ATR42-200, ATR42-300, and ATR42-320 Series
2000-05-27	S 98-21-06	British Aerospace	BAe 146-100A, -200A, and -300A Series
2000-05-28		British Aerospace	BAe 146 and Avro 146-RJ Series
2000-05-29		Boeing	737-100, -200, -300, -400, and -500 Series
2000-05-30		Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300 +
2000-06-02		Dornier	228-100, 228-101, 228-200, 228-201, 228-202, +
2000-06-04		Fairchild	SA226-T, SA226-AT, SA226-T(B), SA227-AT, +

Biweekly 2000-07

2000-05-22		CFM International	Engine: CFM56-2, -2A, -2B, -3, -3B, and -3C Series
2000-06-08	S 98-01-15	Airbus	A330-301, -321, -322, -341, -342, A340-211, -212, -213 +
2000-06-13	S 98-25-06	Boeing	737-200, -200C, -300, -400 Series
2000-07-01	S 98-13-34	Embraer-Empresa Brasileira	EMB-145 Series
2000-07-02		McDonnell Douglas	MD-11 Series
2000-07-51	E	McDonnell Douglas	717-200 Series

Biweekly 2000-08

2000-01-05	S 99-18-03	Boeing	747-100B, -200, -300, and SP Series
2000-05-03		Airbus	A300-600 and A310 Series
2000-05-12		Rolls-Royce	Engine: RB211-524G2-19, RB211-524G3-19, +
2000-05-13		Boeing	737-100, -200, -300, -400, and -500 Series
99-13-08 R1		Lockheed	L-1011-385 Series
99-23-22 R2	Recission	Transport Category Airplanes	Appliance: Mode “C” Transponder
2000-07-05	S 99-07-06	Boeing	767 Series
2000-07-06		Boeing	737-100, -200, -200C, -300, -400, and -500 Series
2000-07-07		Airbus	A300 Series

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Biweekly 2000-08...Cont'd

2000-07-08		Boeing	777 Series
2000-07-10		Boeing	747-200B, -300, -400, -400D, -400F Series
2000-07-11		Industrie Aero. Mec.	Piaggio P-180
2000-07-13		Boeing	757-200, -200PF Series
2000-07-14		McDonnell Douglas	MD-11 Series
2000-07-15		McDonnell Douglas	MD-11 Series
2000-07-16	S 94-11-06	McDonnell Douglas	MD-11 and MD-11F Series
2000-07-18		McDonnell Douglas	MD-11 and MDj-11F Series
2000-07-20		McDonnell Douglas	MD-11 Series
2000-07-21		McDonnell Douglas	MD-11 Series
2000-07-22		Airbus	A300-600 Series
2000-07-23		Bombardier	DHC-8-100 Series
2000-07-24		Fokker	F.28 Mark 0070 and 0100
2000-07-25		Gulfstream Aerospace	G-IV Series
2000-07-27		Transport Category Airplanes	Appliance: Honeywell Air Data Inertial Reference Unit
2000-07-28	S 99-18-22	Fokker	F27 Series
2000-07-29	S 98-16-09	Airbus	A300, A310, and A300-600 Series
2000-08-01		Rolls-Royce	Engine: Tay 650-15 Series Turbofan
2000-08-03	S 2000-05-01	McDonnell Douglas	MD-11 Series

Biweekly 2000-09

95-19-04 R1	Rescission	Learjet	35, 35A, 36, 36A, 55, 55B, and 55C
99-27-14	COR S 99-01-15	Airbus industrie	A340-211, -212, -213, -311, -312, and –313 Series
2000-05-06		Raytheon Aircraft Company	400A series and 400T Series
2000-07-04		Dornier Luftfahrt GMBH	328-100 series
2000-07-09		Boeing	737-600, -700, and –800 series
2000-07-12		Boeing	727-100, -100C, and –200 Series
2000-07-17		McDonnell Douglas	MD-11 Series
2000-07-19		McDonnell Douglas	MD-11 Series
2000-07-26		Airbus Industrie	A300 Series
2000-07-51		McDonnell Douglas	717-200 Series
2000-08-07	S 96-24-16	Raytheon Aircraft Co	BAe 125-800A and BAe 125-800B, Hawker 800, +
2000-08-08		Boeing	737-600, -700, and –800 Series
2000-08-10	S 99-08-17	General Electric Company	Engine: GE90-76B/ -77B/ -85B/ -90B/ -92B Series
2000-08-11	S 99-08-18	General Electric Company	Engine: CF6-6, CF6-45, and CF6-50 Series
2000-08-12	S 99-08-13	General Electric Company	Engine: CF6-80A, CF6-80C2, and CF6-80E1 Series
2000-08-13		Learjet	45
2000-08-14		Boeing	747 Series
2000-08-15		Boeing	777 Series
2000-08-17		Boeing	737-100, -200, -300, -400, and –500 Series
2000-08-19		Boeing	727 and 727C series
2000-08-20		Lockheed	L-1011-385-1, -1-14, -1-15, and –3 Series
2000-08-21		Boeing	747 Series
2000-09-01	S 93-20-02	McDonnell Douglas	DC-8 Series
2000-09-02		McDonnell Douglas	DC-8 Series
2000-09-03	S 2000-02-33	Boeing	747-400 Series
2000-09-04	S 2000-02-20	Boeing	767 Series
2000-09-05		Allison Engine Company	Engine: AE 3007A, AE 3007A1, AE 3007A1/1, +

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Biweekly 2000-10

2000-08-18		McDonnell Douglas	DC-9 series, MD-88, MD-90-30
2000-09-07		McDonnell Douglas	DC-10-10, -15, -30, -30F, and -40 Series, +
2000-09-08		Boeing	747-100, -200, 747SP, and 747SR Series
2000-09-09	S 99-01-12	Embraer - Empresa Brasileira	EMB-145
2000-09-10		Airbus Industrie	A300-600 Series
2000-09-11		Fokker Services BV	F.28 Mark 0070
2000-09-12		Raytheon Aircraft Company	400A series, 400T (T-1A) Series, 400T (TX) Series
2000-09-13		British Aerospace	Jetstream 3201
2000-09-14		Rolls-Royce	Engine: RB211-535 Series
2000-10-02		Airbus	All A319, A320, A321, A330, and A340 Series
2000-10-03		McDonnell Douglas	DC-10 Series
2000-10-51	E	Boeing	767 Series

Biweekly 2000-11

2000-04-05	C	Israel Aircraft Industries	Astra SPX Series
2000-10-01	S 96-08-08	Airbus Industrie	A300 B2, A300 B2K, A300 B2-200, A300 B4-2C, +
2000-10-04		Israel Aircraft Industries	1124 and 1124A Westwind
2000-10-11		Gulfstream Aerospace	G-159 Series
2000-10-12		Boeing	747-400 Series
2000-10-15	S 93-08-15	Airbus Industire	A320 Series
2000-10-16	S 98-14-11	Airbus Industrie	A319, A320, and A321 Series
2000-10-17		Boeing	747 Series
2000-10-18	S 96-11-05	Airbus Industrie	A300, A300-600, and A310 Series
2000-10-19		Israel Aircraft Industries	1125 Westwind Astra and Astra SPX Series
2000-10-21		Boeing	737-300, -400, and –500 Series
2000-10-23	S 97-26-21	Boeing	747-100, 747-200, 747-300, 747SR, and 747SP Series
2000-11-01		McDonnell Douglas	DC-9-81 (MD-81), DC-9-82 (MD-82), +
2000-11-02		McDonnell Douglas	DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, +

ISRAEL AIRCRAFT INDUSTRIES
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

CORRECTION

2000-04-05 ISRAEL AIRCRAFT INDUSTRIES, LTD.: Amendment 39-11587. Docket 99-NM-256-AD.

Applicability: Model Astra SPX series airplanes, serial numbers 085 through 112 inclusive, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent cracks in the lower scissors fitting and fitting attachment bolts of the horizontal stabilizer, which could result in possible in-flight loss of the horizontal stabilizer and consequent reduced controllability of the airplane, accomplish the following:

Inspections and Corrective Actions

(a) Within 30 flight hours after the effective date of this AD, perform a detailed visual inspection of the bolt holes in the lower scissors fitting of the horizontal stabilizer to measure the countersink angle, in accordance with Astra Alert Service Bulletin 1125-55A-192, Revision 1, dated June 1, 1999.

(1) If the measured angle of countersink is within the limits specified in the alert service bulletin, no further action is required by this AD.

(2) If the measured countersink angle is outside the limits specified in the alert service bulletin, prior to further flight, perform a detailed visual inspection of the fitting attachment bolts in the lower scissors fitting of the horizontal stabilizer to detect concave bolt heads, in accordance with the alert service bulletin.

(i) If no bolt head is found to be concave, repeat the inspection required by paragraph (a)(2) of this AD thereafter at intervals not to exceed 50 flight hours; and, within 250 flight hours after the initial inspection required by paragraph (a) of this AD, rework all bolt holes and replace the existing bolts with new bolts in accordance with the Accomplishment Instructions of the alert service bulletin. Such rework constitutes terminating action for the repetitive inspections required by this paragraph.

(ii) If any bolt head is found to be concave, prior to further flight, rework all bolt holes and replace the existing bolts with new bolts, in accordance with the Accomplishment Instructions of the alert service bulletin.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions shall be done in accordance with Astra Alert Service Bulletin 1125-55A-192, Revision 1, dated June 1, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Galaxy Aerospace Corporation, One Galaxy Way, Fort Worth Alliance Airport, Fort Worth, Texas 76177. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 4: The subject of this AD is addressed in Israeli airworthiness directive 55-99-04-02R2, dated August 4, 1999.

(e) This amendment becomes effective on March 29, 2000.

FOR FURTHER INFORMATION CONTACT:
Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on February 14, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

AIRBUS INDUSTRIE
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-01 AIRBUS INDUSTRIE: Amendment 39-11725. Docket 98-NM-56-AD. Supersedes AD 96-08-08, Amendment 39-9574.

Applicability: All Model A300 B2, A300 B2K, A300 B2-200, A300 B4-2C, A300 B4-100, and A300 B4-200 series airplanes, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (h) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct corrosion and cracking of the wings and fuselage, which could result in reduced structural integrity of the airplane, accomplish the following:

RESTATEMENT OF CERTAIN REQUIREMENTS OF AD 92-02-09

Inspections and Modifications

(a) Accomplish the inspections and modifications contained in the Airbus service bulletins listed below prior to or at the thresholds identified in each of those service bulletins, or within 1,000 landings or 12 months after April 13, 1992 (the effective date of AD 92-02-09, amendment 39-8145), whichever occurs later, except as provided in paragraph (d) of this AD for the service bulletin identified in paragraph (a)(8) of this AD. Required inspections shall be repeated thereafter at intervals not to exceed those specified in the corresponding service bulletin for the inspection. After April 13, 1992, the actions shall only be accomplished in accordance with the latest revision of the service bulletins specified.

(1) Airbus Service Bulletin A300-53-103, Revision 4, dated June 30, 1983; or Revision 5, dated February 23, 1994;

(2) Airbus Service Bulletin A300-53-126, Revision 7, dated November 11, 1990; or Revision 8, dated September 18, 1991;

(3) Airbus Service Bulletin A300-53-146, Revision 7, dated April 26, 1991;

NOTE 2: Airbus Service Bulletin A300-53-146 provides for a compliance threshold of within 5 years after the date of issuance of French airworthiness directive 90-222-116(B), issued on December 12, 1990, the accomplishment of which is required by AD 85-07-09, amendment 39-5033.

(4) For Configuration 1 airplanes identified in Airbus Service Bulletin A300-53-0162, Revision 6, dated March 20, 1996: Airbus Service Bulletin A300-53-162, Revision 4, dated November 12, 1990; Revision 5, dated March 17, 1994; or Revision 6, dated March 20, 1996. After the effective date of this new AD, only Revision 6 of the service bulletin shall be used;

(5) Airbus Service Bulletin A300-53-196, Revision 1, dated November 12, 1990; as amended by Service Bulletin Change Notice 1.A., dated February 4, 1991, or Revision 2, dated March 17, 1994;

NOTE 3: Airbus Service Bulletin A300-53-196 provides for a compliance threshold of within 6,000 landings after accomplishment of Airbus Service Bulletin A300-53-194, accomplishment of which is required by AD 87-04-12, amendment 39-5536.

(6) Airbus Service Bulletin A300-53-225, Revision 2, dated May 30, 1990;

(7) Airbus Service Bulletin A300-53-226, Revision 4, dated November 12, 1990; or Revision 5, dated September 7, 1991;

NOTE 4: Airbus Service Bulletin A300-53-226 provides for a compliance threshold of within 5 years after the issuance of French airworthiness directive 90-222-116(B), issued on December 12, 1990; but not later than 20 years after first delivery; the accomplishment of which is required by AD 90-03-08, amendment 39-6481.

(8) For Configuration 1 and 2 airplanes identified in Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995: Airbus Service Bulletin A300-53-278, dated November 12, 1990; or Revision 1, dated March 17, 1994;

(9) Airbus Service Bulletin A300-54-045, Revision 4, dated January 31, 1990; or Revision 6, dated February 25, 1994;

(10) Airbus Service Bulletin A300-54-060, Revision 2, dated September 7, 1988, and Change Notice 2.A., dated February 13, 1990; or Revision 3, dated February 25, 1994;

(11) Airbus Service Bulletin A300-54-063, Revision 1, dated April 22, 1987, and Change Notice 1.A., dated February 13, 1990; or Revision 2, dated February 25, 1994; (12) Airbus Service Bulletin A300-54-066, Revision 1, dated February 15, 1989, and Change Notice 1.A., dated February 13, 1990; or Revision 2, dated February 25, 1994.

RESTATEMENT OF CERTAIN REQUIREMENTS OF AD 96-08-08

(b) Accomplish the inspections and modifications contained in the Airbus service bulletins listed below prior to or at the thresholds identified in each of those service bulletins, or within 1,000 landings or 12 months after March 29, 1996 (the effective date of AD 96-08-08, amendment 39-9574), whichever occurs later. Required inspections shall be repeated thereafter at intervals not to exceed those specified in the corresponding service bulletin for the inspection.

(1) Airbus Service Bulletin A300-57-0194, Revision 2, including Appendix 1, dated August 19, 1993;

(2) Airbus Service Bulletin A300-57-166, Revision 3, including Appendix 1, dated July 12, 1993;

(3) Airbus Service Bulletin A300-57-0167, Revision 1, including Appendix 1, dated May 25, 1993;

(4) Airbus Service Bulletin A300-57-0168, Revision 3, including Appendix 1, dated November 22, 1993;

(5) Airbus Service Bulletin A300-57-0180, Revision 1, dated March 29, 1993;

(6) Airbus Service Bulletin A300-57-0185, Revision 1, including Appendix 1, dated March 8, 1993; and

(7) Airbus Service Bulletin A300-54-0084, dated April 21, 1994.

NEW REQUIREMENTS OF THIS AD

Inspections

(c) For Configuration 2 airplanes identified in Airbus Service Bulletin A300-53-0162, Revision 6, dated March 20, 1996: Accomplish the inspections contained in Airbus Service Bulletin A300-53-0162, Revision 6, dated March 20, 1996, prior to or at the thresholds identified in the service bulletin; or within 1,000 landings or 12 months after the effective date of this AD, whichever occurs later. Required inspections shall be repeated thereafter at intervals not to exceed those specified in the service bulletin for the inspection.

(d) For Configuration 1 and 2 airplanes identified in Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995: Accomplish the inspections contained in Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995; at the time specified in paragraph (d)(1) or (d)(2) of this AD, as applicable. Repeat the inspections thereafter at intervals not to exceed 3,600 flight cycles. Accomplishment of the inspections required by this paragraph constitutes terminating action for the inspections required by paragraph (a)(8) of this AD.

(1) For airplanes that have not been inspected in accordance with paragraph (a) and (a)(8) of this AD prior to the effective date of this AD: Inspect at the time specified in paragraph (d)(1)(i) or (d)(1)(ii) of this AD, as applicable.

(i) For Configuration 1 airplanes: Prior to the accumulation of 18,300 total landings, or within 1,000 landings or 12 months after the effective date of this AD, whichever occurs later.

(ii) For Configuration 2 airplanes: At the earlier of the times specified in paragraphs (d)(1)(ii)(A) or (d)(1)(ii)(B) of this AD.

(A) At the time specified in paragraphs (a) and (a)(8) of this AD.

(B) Prior to the accumulation of 22,000 total landings, or within 1,000 landings or 12 months after the effective date of this AD, whichever occurs later.

(2) For airplanes that have been inspected in accordance with paragraph (a) and (a)(8) of this AD prior to the effective date of this AD: Perform the next inspection within 3,600 landings after accomplishing the last inspection, or within 1,000 landings or 12 months after the effective date of this AD, whichever occurs later.

(e) For Configuration 3 airplanes identified in Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995: Accomplish the inspections contained in Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995, prior to the accumulation of 26,000 total flight cycles; or within 1,000 landings or 12 months after the effective date of this AD, whichever occurs later. Repeat the inspections thereafter at intervals not to exceed 5,000 flight cycles.

NOTE 5: Accomplishment of the inspections specified in Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995, is considered acceptable for compliance with the significant structural details (SSD) inspection 536206 of "Airbus Industrie A300 Supplemental Structural Inspection Document" (SSID), Revision 2, dated June 1994, required by AD 96-13-11, amendment 39-9679 (61 FR 35122, July 5, 1996).

Corrective Actions for All Inspections

(f) If any discrepant condition identified in any service bulletin referenced in this AD is found during any inspection required by this AD, prior to further flight, accomplish the corresponding corrective action specified in the service bulletin, except as specified in paragraph (g) of this AD.

(g) If any crack is found during any inspection required by this AD; and the applicable service bulletin specifies to contact Airbus for appropriate action: Prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent). For a repair method to be approved by the Manager, International Branch, ANM-116, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(h) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 6: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(i) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(j) Except as required by paragraph (g) of this AD, the actions shall be done in accordance with the Airbus service bulletins listed in paragraphs (j)(1), (j)(2), and (j)(3) of this AD.

(1) The incorporation by reference of Airbus Service Bulletin A300-53-0162, Revision 6, dated March 20, 1996, and Airbus Service Bulletin A300-53-0278, Revision 2, dated November 10, 1995, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of the Airbus service bulletins listed in Table 1 was approved previously by the Director of the Federal Register as of April 13, 1992 (57 FR 8257, March 9, 1992).

TABLE 1

Airbus Service Bulletin Number	Revision Level	Service Bulletin Date
A300-53-103	4	June 30, 1983
A300-53-126	7	November 11, 1990
A300-53-146	7	April 26, 1991
A300-53-162	4	November 12, 1990
A300-53-196	1	November 12, 1990
A300-53-225	2	May 30, 1990
Service Bulletin Change Notice 1.A. to A300-53-196	(Original)	February 4, 1991
A300-53-226	4	November 12, 1990
A300-53-226	5	September 7, 1991
A300-53-278	(Original)	November 12, 1990
A300-54-045	4	January 31, 1990
A300-54-060	2	September 7, 1988
Change Notice 2.A. to A300-54-060	(Original)	February 13, 1990
A300-54-063	1	April 22, 1987
Change Notice 1.A. to A300-54-063	(Original)	February 13, 1990
A300-54-066	1	February 15, 1989
Change Notice 1.A.to A300-54-066	(Original)	February 13, 1990

(3) The incorporation by reference of the Airbus service bulletins listed in Table 2 was approved previously by the Director of the Federal Register as of May 29, 1996 (61 FR 18661, April 29, 1996).

TABLE 2

Airbus Service Bulletin Number	Revision Level	Service Bulletin Date
A300-53-103	5	February 23, 1994
A300-53-126	8	September 18, 1991
A300-53-162	5	March 17, 1994
A300-53-278	1	March 17, 1994
A300-54-045	6	February 25, 1994
A300-54-060	3	February 25, 1994
A300-54-063	2	February 25, 1994
A300-54-066	2	February 25, 1994
A300-57-0194	2	August 19, 1993
A300-57-166	3	July 12, 1993
A300-57-0167	1	May 25, 1993
A300-57-0168	3	November 22, 1993
A300-57-0180	1	March 29, 1993
A300-57-0185	1	March 8, 1993
A300-54-0084	(Original)	April 21, 1994

(4) Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 7: The subject of this AD is addressed in French airworthiness directives 93-154-149(B), dated September 15, 1993, and 90-222-116(B)R4, dated March 27, 1996.

(k) This amendment becomes effective on June 28, 2000.

FOR FURTHER INFORMATION CONTACT:
Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on May 8, 2000.
Vi L. Lipski, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2000-11

ISRAEL AIRCRAFT INDUSTIRES
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-04 ISRAEL AIRCRAFT INDUSTRIES, LTD.: Amendment 39-11728. Docket 2000-NM-42-AD.

Applicability: Model 1124 and 1124A Westwind airplanes having serial numbers (S/N) 297, 304, and 400 through 410 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent cracking of the aileron skin due to missing rivets, which could result in reduced structural integrity of the aileron and consequent reduced controllability of the airplane, accomplish the following:

X-Ray Inspection

(a) Within 200 flight hours after the effective date of this AD, perform a one-time X-ray inspection to detect missing rivets at the rib-to-spar connection of the aileron ribs, left and right sides, at work stations (WS) 158.00 to WS 246.00, in accordance with 1124 Westwind (Israel Aircraft Industries) Alert Service Bulletin No. 1124-27A-145, dated March 24, 2000.

(1) If all rivets are installed, no further action is required by this AD.

(2) If any rivet is missing, prior to further flight, replace the aileron with a new or serviceable aileron, in accordance with Israel Aircraft Industries 1124/1124A Westwind Maintenance Manual, or repair the aileron in accordance with a method approved by either the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Civil Aviation Administration of Israel (CAAI) (or its delegated agent). For a repair method to be approved by the Manager, International Branch, ANM-116, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The inspection shall be done in accordance with 1124 Westwind (Israel Aircraft Industries) Alert Service Bulletin No. 1124-27A-145, dated March 24, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Galaxy Aerospace Corporation, One Galaxy Way, Fort Worth Alliance Airport, Fort Worth, Texas 76177.

Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in Israeli airworthiness directive 57-00-02-06, dated February 24, 2000.

(e) This amendment becomes effective on June 6, 2000.

FOR FURTHER INFORMATION CONTACT:
Norman B. Martenson, Manager, International Branch, ANM-116, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on May 8, 2000.
Vi L. Lipski, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2000-11

GULFSTREAM
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-11 GULFSTREAM AEROSPACE CORPORATION (Formerly Grumman): Amendment 39-11735. Docket 99-NM-138-AD.

Applicability: Model G-159 series airplanes equipped with pneumatic deicing boots, certificated in any category.

To ensure that flightcrews activate the wing and tail pneumatic deicing boots at the first signs of ice accumulation on the airplane, accomplish the following:

NOTE 1: For the purposes of this AD, the following definitions of "older" and "modern" apply:

"Modern" pneumatic boot systems may be characterized by short segmented, small diameter tubes, which are operated at relatively high pressures [18-23 pounds per square inch (psi)] by excess bleed air that is provided by turbine engines. "Older" pneumatic boot systems may be characterized by long, uninterrupted, large diameter tubes, which were operated at low pressures by engine driven pneumatic pumps whose pressure varied with engine revolutions per minute (rpm). This low pressure coupled with long and large diameter tubes caused early de-ice systems to have very lengthy inflation and deflation cycles and dwell times. (Dwell time is the period of time that the boot remains fully expanded following the completion of the inflation cycle until the beginning of the deflation cycle.)

(a) Within 10 days after the effective date of this AD: Perform a visual inspection to determine if the types of pneumatic deicing boots installed are either "older" or "modern" boots.

(1) For those airplanes equipped with "older" pneumatic deicing boots, no further action is required by this AD.

(2) For those airplanes equipped with "modern" pneumatic deicing boots: Within 10 days after the inspection required by paragraph (a) of this AD, revise the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) to include the following requirements for activation of the ice protection systems. This may be accomplished by inserting a copy of this AD in the AFM.

"• Except for certain phases of flight where the AFM specifies that deicing boots should not be used (e.g., take-off, final approach, and landing), compliance with the following is required.

- Wing and Tail Leading Edge Pneumatic Deicing Boot System, if installed, must be activated:
  - At the first sign of ice formation anywhere on the aircraft, or upon annunciation from an ice detector system, whichever occurs first; and
  - The system must either be continued to be operated in the automatic cycling mode, if available; or the system must be manually cycled as needed to minimize the ice accretions on the airframe.
- The wing and tail leading edge pneumatic deicing boot system may be deactivated only after leaving icing conditions."

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate. The request shall be forwarded through an appropriate FAA Operations Inspector, who may add comments and then send it to the Manager, Atlanta ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) This amendment becomes effective on June 26, 2000.

FOR FURTHER INFORMATION CONTACT:
Neil Berryman, Aerospace Engineer, Systems and Flight Test Branch, ACE-116A, FAA, Small Airplane Directorate, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone (770) 703-6098; fax (770) 703-6097.

Issued in Renton, Washington, on May 15, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2000-11

BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-12 BOEING: Amendment 39-11736. Docket 2000-NM-75-AD.

Applicability: Model 747-400 series airplanes, line numbers 1 through 1205 inclusive, certificated in any category, and equipped with dual crown skin heat exchangers.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct damage or deflection of the crew rest heat exchanger, which could result in jamming of the rudder or elevator control cables, and consequent reduced controllability of the airplane, accomplish the following:

Repetitive Inspections

(a) Within 1,200 flight hours or 90 days after the effective date of this AD, whichever occurs first, perform a general visual inspection of the crew rest heat exchanger to detect deflection or damage, in accordance with Boeing Alert Service Bulletin 747-21A2412, dated January 20, 2000. Repeat the inspection thereafter at intervals not to exceed 2,500 flight hours.

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Corrective Action

(b) If any damage or deflection is detected during any inspection required by paragraph (a) of this AD, prior to further flight, replace the discrepant heat exchanger with a new heat exchanger, and measure the thickness of the material of the discrepant heat exchanger, in accordance with Boeing Alert Service Bulletin 747-21A2412, dated January 20, 2000. If the material is greater than or equal to 0.028 inches thick but less than or equal to 0.038 inches thick (0.028 but 0.038 inches thick), send the damaged heat exchanger and inspection results to the Manager of Service Bulletin Engineering, Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124.

NOTE 3: There is a typographical error in the Accomplishment Instructions on page 10 of the alert service bulletin. Item G. under the heading “Inspection and Replacement of the Heat Exchanger (All Airplanes)” reads, “If the material thickness is between 0.028 – 0.034 inches[,] send the damaged heat exchanger and your inspection results to Boeing.” The number “0.034” should read “0.038.”

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements ofthisADcanbeaccomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 747-21A2412, dated January 20, 2000.This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(f) This amendment becomes effective on June 8, 2000.

FOR FURTHER INFORMATION CONTACT:
Barbara Mudrovich, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2983; fax (425) 227-1181.

Issued in Renton, Washington, on May 15, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

AIRBUS
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-15 AIRBUS INDUSTRIE: Amendment 39-11739. Docket 98-NM-99-AD. Supersedes AD 93-08-15, Amendment 39-8563; and AD 93-25-13, Amendment 39-8777.

Applicability: Model A320 series airplanes, certificated in any category, except those on which Airbus Modification 24591 (Airbus Service Bulletin A320-57-1089, dated December 22, 1996; Revision 01, dated April 17, 1997; or Revision 02, dated November 6, 1998) has been accomplished.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking in certain areas of the rear spar of the wing, which may lead to reduced structural integrity of the wing and the main landing gear (MLG), accomplish the following:

RESTATEMENT OF ACTIONS REQUIRED BY AD 93-08-15:

(a) For airplanes having manufacturer's serial numbers (MSN) 003 through 008 inclusive, and 010 through 021 inclusive: Prior to the accumulation of 12,000 total flight cycles, or within 500 flight cycles after June 11, 1993 (the effective date of AD 93-08-15, amendment 39-8563), whichever occurs later, modify the inner rear spar web of the wing in accordance with Airbus Service Bulletin A320-57-1004, Revision 1, dated September 24, 1992, or Revision 2, dated June 14, 1993.

RESTATEMENT OF ACTIONS REQUIRED BY AD 93-25-13:

(b) For airplanes having MSN's 002 through 051 inclusive: Prior to the accumulation of 12,000 total flight cycles, or within 2,000 flight cycles after February 14, 1994 (the effective date of AD 93-25-13, amendment 39-8777), whichever occurs later, accomplish the requirements of paragraphs (b)(1) and (b)(2) of this AD in accordance with Airbus Service Bulletin A320-57-1060, dated December 8, 1992; or Revision 2, dated December 16, 1994.

(1) Perform a cold expansion of all the attachment holes for the forward pintle fitting of the MLG, except for the holes that are for taper-lok bolts.

(2) Perform a cold expansion of the holes at the actuating cylinder anchorage of the MLG.

NOTE 2: Accomplishment of the cold expansion in accordance with Airbus Service Bulletin A320-57-1060, Revision 1, dated April 26, 1993, is also acceptable for compliance with the requirements of paragraph (b) of this AD.

NEW ACTIONS REQUIRED BY THIS AD:

Ultrasonic Inspections and Corrective Action

(c) For all airplanes: Perform an ultrasonic inspection to detect cracking of the rear spar of the wing, in accordance with Airbus Service Bulletin A320-57-1088, Revision 02, dated July 29, 1999; at the applicable time specified by paragraph (c)(1) or (c)(2) of this AD. Repeat the inspection thereafter at intervals not to exceed 3,600 flight cycles.

(1) For airplanes on which the actions specified by Airbus Service Bulletin A320-57-1004, Revision 2, dated June 14, 1993, or earlier version; and Airbus Service Bulletin A320-57-1060, Revision 02, dated December 16, 1994, or earlier version; have been accomplished: Perform the inspection of all applicable fastener holes within 12,000 flight cycles after accomplishment of the service bulletins, or within 750 flight cycles after the effective date of this AD, whichever occurs later.

(2) For airplanes on which the actions specified by Airbus Production Modification 20740 and Airbus Service Bulletin A320-57-1060, Revision 2, dated December 16, 1994, or earlier version, have been accomplished; or on which Airbus Production Modifications 20740, 20741, and 20796 have been accomplished: Perform the inspections at the locations and applicable times specified by paragraphs (c)(2)(i) and (c)(2)(ii) of this AD.

(i) Perform the inspection of left and right fastener holes 52 to 55, 82, 83, 87, and 88; located in the rear spar of the wing; prior to the accumulation of 17,300 total flight cycles, or within 750 flight cycles after the effective date of this AD, whichever occurs later. If any cracking is found, prior to further flight, accomplish the requirements of paragraph (c)(2)(ii) of this AD.

(ii) Except as required by paragraph (c)(2)(i) of this AD: Perform the inspection of all fastener holes located in the rear spar of the wing that are not identified in paragraph (c)(2)(i) of this AD prior to the accumulation of 20,000 total flight cycles, or within 200 flight cycles after the effective date of this AD, whichever occurs later.

NOTE 3: Accomplishment of the actions specified by Airbus Service Bulletin A320-57-1088, dated September 30, 1996, or Revision 01, dated September 17, 1997, prior to the effective date of this AD is acceptable for compliance with the requirements of the initial inspection required by paragraph (c) of this AD.

(d) If any crack is found during any inspection required by paragraph (c) of this AD: Prior to further flight, repair in accordance with a method approved by either the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent). For a repair method to be approved by the Manager, International Branch, ANM-116, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Optional Terminating Action

(e) Modification of all specified fastener holes in the rear spar of the wing in accordance with Airbus Service Bulletin A320-57-1089, dated December 22, 1996; Revision 01, dated April 17, 1997; or Revision 02, dated November 6, 1998; constitutes terminating action for the ultrasonic inspections required by paragraph (c) of this AD. Such modification, if accomplished prior to the accumulation of 12,000 total flight cycles, also constitutes terminating action for the actions required by paragraphs (a) and (b) of this AD.

Alternative Methods of Compliance

(f) (1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

(2) Alternative methods of compliance, approved previously in accordance with AD 93-25-13; amendment 39-8777, are approved as alternative methods of compliance with this AD.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(h) Except as required by paragraph (d) of the AD, the actions shall be done in accordance with Airbus Service Bulletin A320-57-1004, Revision 1, dated September 24, 1992; Airbus Service Bulletin A320-57-1004, Revision 2, dated June 14, 1993; Airbus Service Bulletin A320-57-1060, dated December 8, 1992; Airbus Service Bulletin A320-57-1060, Revision 2, dated December 16, 1994; or Airbus Service Bulletin A320-57-1088, Revision 02, including Appendix 01, dated July 29, 1999; as applicable. Airbus Service Bulletin A320-57-1004, Revision 2, dated June 14, 1993, contains the following list of effective pages:

Page Number	Revision Level Shown on Page	Date Shown on Page
1, 4, 12, 14, 17-20, 22, 23,	28, 292	June 14, 1993
15	1	September 24, 1992
2, 3, 5-11, 13, 16, 21, 24-27, 30	Original	July 9, 1991

(1) The incorporation by reference of Airbus Service Bulletin A320-57-1004, Revision 2, dated June 14, 1993; Airbus Service Bulletin A320-57-1060, Revision 2, dated December 16, 1994; and Airbus Service Bulletin A320-57-1088, Revision 02, including Appendix 01, dated July 29, 1999; is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Airbus Service Bulletin A320-57-1004, Revision 1, dated September 24, 1992, was approved previously by the Director of the Federal Register as of June 11, 1993 (58 FR 27923, May 12, 1993).

(3) The incorporation by reference of Airbus Service Bulletin A320-57-1060, dated December 8, 1992, was approved previously by the Director of the Federal Register as of February 14, 1994 (59 FR 1903, January 13, 1994).

(4) Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 5: The subject of this AD is addressed in French airworthiness directive 1999-264-135(B), dated June 30, 1999.

(i) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:
Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149

Issued in Renton, Washington, on May 16, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

AIRBUS INDUSTRIE
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-16 AIRBUS INDUSTRIE: Amendment 39-11740. Docket 99-NM-28-AD. Supersedes AD 98-14-11, Amendment 39-10644.

Applicability: Model A319, A320, and A321 series airplanes, certificated in any category, except those on which Airbus Service Bulletin A320-32-1213, dated March 21, 2000 (reference Airbus Modification 28903 or 30044), has been accomplished.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct a rotated, damaged, or missing lock bolt, which could result in disengagement of the pintle pin from the bearing, and consequent collapse of the main landing gear (MLG) during landing, accomplish the following:

Inspection

(a) Perform a detailed visual inspection to detect discrepancies (rotation, damage, and absence) of the lock bolt for the pintle pin on the MLG, in accordance with Airbus All Operator Telex (AOT) 32-17, Revision 01, dated November 6, 1997, Airbus Service Bulletin A320-32-1187, dated June 17, 1998, or Airbus Service Bulletin A320-32-1187, Revision 01, dated February 17, 1999, at the latest of the times specified in paragraphs (a)(1), (a)(2), and (a)(3) of this AD. If any discrepancy is detected, prior to further flight, perform corrective actions, as applicable, in accordance with the AOT or service bulletin. Repeat the inspection thereafter at intervals not to exceed 1,000 flight cycles or 15 months, whichever occurs first, unless the terminating action of paragraph (c) of this AD is accomplished. After the effective date of this AD, only Airbus Service Bulletin A320-32-1187, Revision 01, dated February 17, 1999, shall be used for compliance with this paragraph.

(1) Within 30 months since the airplane's date of manufacture or prior to the accumulation of 2,000 total flight cycles, whichever occurs first.

(2) Within 15 months or 1,000 flight cycles after the last gear replacement or accomplishment of Airbus Industrie Service Bulletin A320-32-1119, dated June 13, 1994, whichever occurs first.

(3) Within 500 flight cycles after August 12, 1998 (the effective date of AD 98-14-11, amendment 39-10644).

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

One-time Follow-on Actions

(b) For airplanes on which the actions described in paragraph 2.B.(2)(c) of Airbus Service Bulletin A320-32-1187, Revision 01, dated February 17, 1999, have not been accomplished: At the time of the initial inspection or the next repetitive inspection required by paragraph (a) of this AD, perform the applicable one-time follow-on actions (including retorquing the forward pintle pin lock bolt and applying sealant to the head of the lock bolt), in accordance with section 2.B.(2)(c) of the Accomplishment Instructions of Airbus Service Bulletin A320-32–1187, Revision 01, dated February 17, 1999.

Optional Terminating Modification

(c) Modification of the lock bolts of the bolt for the pintle pin on the MLG in accordance with Airbus Service Bulletin A320-32-1213, dated March 21, 2000, constitutes terminating action for the requirements of this AD.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with Airbus All Operator Telex (AOT) 32-17, Revision 01, dated November 6, 1997; Airbus Service Bulletin A320-32-1187, dated June 17, 1998; or Airbus Service Bulletin A320-32-1187, Revision 01, dated February 17, 1999.

(1) The incorporation by reference of Airbus Service Bulletin A320-32-1187, dated June 17, 1998, and Airbus Service Bulletin A320-32-1187, Revision 01, dated February 17, 1999, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Airbus All Operator Telex (AOT) 32-17, Revision 01, dated November 6, 1997, was approved previously by the Director of the Federal Register as of August 12, 1998 (63 FR 36834, July 8, 1998).

(3) Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 4: The subject of this AD is addressed in French airworthiness directive 97-385-112(B)R1, dated October 21, 1998.

(g) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149

Issued in Renton, Washington, on May 16, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-17 BOEING: Amendment 39-11741. Docket 99-NM-65-AD.

Applicability: Model 747 series airplanes equipped with Pratt & Whitney JT9D-70 series engines; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (g) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent inadvertent deployment of a thrust reverser during flight and consequent reduced controllability of the airplane, accomplish the following:

Inspection/Repair

(a) Within 200 flight hours or 50 flight cycles after the effective date of this AD, whichever occurs later: Inspect the thrust reverser wiring on each engine to detect discrepancies, in accordance with Boeing Service Bulletin 747-78A2149, Revision 1, dated May 9, 1996, or Revision 2, dated August 29, 1996. Prior to further flight, repair any discrepancy, in accordance with the service bulletin.

Modification and Tests

(b) Within 5,000 flight hours or 500 flight cycles after the effective date of this AD, whichever occurs later: Accomplish the thrust reverser wiring modification on each engine in accordance with Boeing Service Bulletin 747-78A2149, Revision 1, dated May 9, 1996, or Revision 2 dated August 29, 1996.

(1) Concurrent with accomplishment of Boeing Service Bulletin 747-78A2149, Revision 1 or Revision 2: Accomplish the modification of the thrust reverser control system wiring specified in Rohr Service Bulletin TBC-CNS 78-32, Revision 1, dated August 20, 1996.

(2) Prior to further flight following accomplishment of the modification specified in paragraphs (b) and (b)(1): Perform an operational test of the thrust reverser wiring on each engine to detect discrepancies in accordance with Boeing Service Bulletin 747-78A2149, Revision 1, dated May 9, 1996, or Revision 2 dated August 29, 1996. Prior to further flight, correct any discrepancy detected, in accordance with the service bulletin.

Repetitive Inspections and Tests

(c) Perform the inspections and tests of the thrust reverser control and indication system to detect discrepancies at the times specified in paragraphs (c)(1) and (c)(2) of this AD, in accordance with Boeing Alert Service Bulletin 747-78A2159, dated May 18, 1995.

(1) Within 90 days after the effective date of this AD, inspect in accordance with Part III, "1,000 Flight Hour Inspections" of the Accomplishment Instructions of the alert service bulletin. Repeat at intervals not to exceed 1,000 flight hours until accomplishment of paragraph (f) of this AD.

(2) Within 1,500 flight hours or 4 months after the effective date of this AD, whichever occurs later, inspect and test in accordance with Part III, "18 Month Thrust Reverser System Checks" of the Accomplishment Instructions of the alert service bulletin. Repeat at intervals not to exceed 18 months until accomplishment of paragraph (e) of this AD.

Corrective Actions

(d) If any inspection or test required by paragraph (c) of this AD cannot be successfully performed as specified in the referenced service bulletin, or if any discrepancy is detected during any inspection or test, prior to further flight, repair in accordance with Boeing Alert Service Bulletin 747-78A2159, dated May 18, 1995. Additionally, prior to further flight, any failed inspection or test required by paragraph (c) of this AD must be repeated and successfully accomplished.

Terminating Action

(e) Accomplish the requirements of paragraphs (e)(1) and (e)(2) of this AD at the times specified in those paragraphs. Accomplishment of these actions constitutes terminating action for the repetitive inspections and tests required by paragraph (c) of this AD.

(1) Within 36 months after the effective date of this AD: Install an additional locking system on each engine thrust reverser in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78-2153, Revision 1, dated November 27, 1996.

(2) Prior to or concurrent with accomplishment of Boeing Service Bulletin 747-78-2153, Revision 1: Accomplish the installation of provisional wiring for the locking system on the thrust reversers in accordance with Boeing Service Bulletins 747-78-2135, dated August 31, 1995; and 747-78A2149, Revision 1, dated May 9, 1996, or Revision 2, dated August 29, 1996. Additionally, concurrent with accomplishment of Boeing Service Bulletin 747-78-2153, Revision 1, accomplish the installation of the provisional wiring described previously in accordance with Rohr Service Bulletin TBC-CNS 78-33, Revision 1, dated August 20, 1996.

Repetitive Functional Tests

(f) Within 4,000 hours time-in-service after accomplishment of paragraph (e) of this AD: Perform a functional test to detect discrepancies of the additional locking system on each thrust reverser, in accordance with Appendix 1 (including Figures 1 and 2) of this AD. Prior to further flight, correct any discrepancy detected, in accordance with the procedures described in the Boeing 747 Airplane Maintenance Manual. Repeat the functional test thereafter at intervals not to exceed 4,000 hours time-in-service.

Alternative Methods of Compliance

(g) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permit

(h) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(i) Except as provided by paragraph (f) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 747-78A2149, Revision 1, dated May 9, 1996; Boeing Service Bulletin 747-78A2149, Revision 2, dated August 29, 1996; Boeing Alert Service Bulletin 747-78A2159, dated May 18, 1995; Boeing Service Bulletin 747-78-2135, dated August 31, 1995; Boeing Service Bulletin 747-78-2153, Revision 1, dated November 27, 1996; Rohr Service Bulletin TBC-CNS 78-32, Revision 1, dated August 20, 1996; and Rohr Service Bulletin TBC-CNS 78-33, Revision 1, dated August 20, 1996; as applicable. Rohr Service Bulletin TBC-CNS 78-32, Revision 1, dated August 20, 1996 contains the following list of effective pages:

Page Number	Revision Level Shown on Page	Date Shown on Page
1, 3, 5-8, 10-11, 13-14, 16-18	1	August 20, 1996
2, 4, 9, 12, 15	Original	May 25, 1995

Rohr Service Bulletin TBC-CNS 78-33, Revision 1, dated August 20, 1996 contains the following list of effective pages:

Page Number	Revision Level Shown on Page	Date Shown on Page
1, 3-55	1	August 20, 1996
2	Original	December 11, 1995

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(j) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:

Larry Reising, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2683; fax (425) 227-1181.

Issued in Renton, Washington, on May 16, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

APPENDIX 1.
THRUST REVERSER SYNC-LOCK INTEGRITY TEST

1. General

A. Equipment and Materials

(1) Thrust reverser flex drive adapter - 196K8004-1 or 196K8004-3; Rohr Industries, Inc., Chula Vista, California 92012.

2. Thrust Reverser Sync-Lock Integrity Test

B. Prepare for the thrust reverser sync lock test.

(1) Open applicable T/R CONT & BLEED SYS circuit breaker on P12 circuit breaker panel.
(2) Open fan cowl doors (Ref 71-11-02, Maintenance Practices).
(3) Check that forward and aft circumferential latches and all tension latches are engaged and locked.
(4) Depress drive unit latch operating arm and retain by engaging latch arm (detail C).
(5) Disengage stow latch hook on left and right thrust reversers (detail D).
(6) On either lower slave actuator (detail B), either remove coverplate from forward drive pad or remove locking plug from lower drive pad.
(7) Move left-hand sync-lock lever to the unlocked position.
(8) Using appropriate drive adapter (196K8004-1 at forward drive pad or 196K8004-3 at lower drive pad), attempt to manually deploy sleeves.

CAUTION: DO NOT APPLY A TORQUE LOAD OF MORE THAN 75 POUND-INCHES TO THE ACTUATOR; A GREATER TORQUE LOAD CAN CAUSE DAMAGE TO THE MECHANISM.

(9) If sleeves move, replace the right-hand sync-lock.
(10) Move left-hand sync-lock lever to the locked position.
(11) Move right-hand sync-lock lever to the unlocked position.
(12) Repeat step (8) above.
(13) If sleeves move, replace the left-hand sync-lock.
(14) Move left-hand sync-lock lever to the unlocked position.
(15) Rotate actuator gearshaft to fully stow the sleeves.
(16) When translating sleeves reach stowed position, check that stow latch hooks have engaged fixed hooks on both sides (detail D).
(17) Depress latch operating arm and disengage latch arm (detail C); allow latch arm to raise.
(18) After releasing arm, verify latch engagement by attempting to rotate feedback gear on drive unit using 1/4-inch square drive; gear shall not rotate in excess of 0.1 of a turn.

CAUTION: DO NOT APPLY A TORQUE LOAD OF MORE THAN 25 POUND-INCHES ON FEEDBACK GEAR; A GREATER TORQUE LOAD CAN CAUSE DAMAGE TO THE MECHANISM.

(19) As applicable, install locking plug (with square section facing away from drive pad) or coverplate on actuator drive pad. Secure plug or plate with bolts tightened to 50-70 pound-inches.
(20) Move both left- and right-hand sync-lock levers to the locked position.
(21) Close fan cowl doors (Ref 71-11-02, Maintenance Practices).
(22) Close T/R CONT & BLEED SYS circuit breaker.
(23) Repeat the sync-lock integrity test on all remaining thrust reversers.

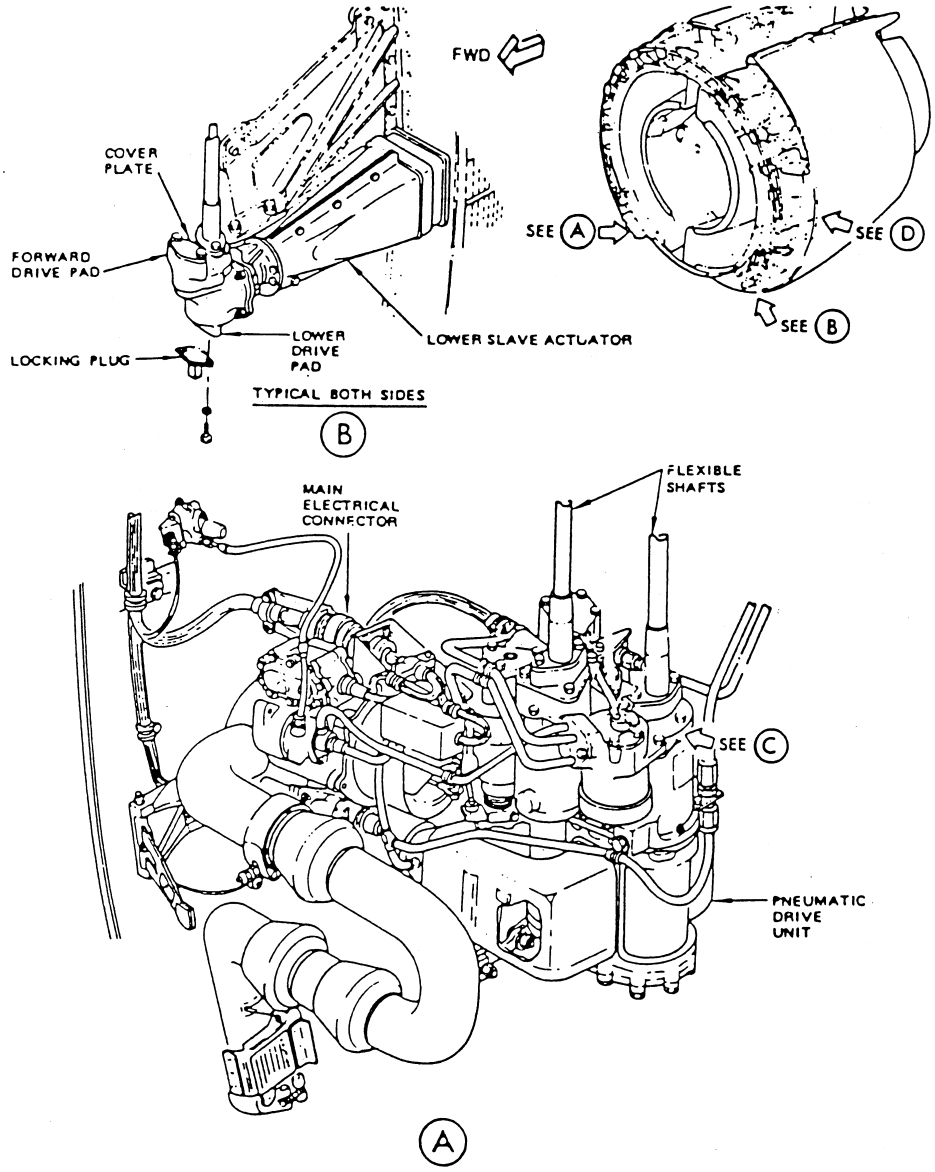

FWD
COVER PLATE
FORWARD DRIVE PAD
LOCKING PLUG
LOWER DRIVE PAD
LOWER SLAVE ACTUATOR
SEE A
SEE D
SEE B
TYPICAL BOTH SIDES
B
MAIN ELECTRICAL CONNECTOR
FLEXIBLE SHAFTS
SEE C
PNEUMATIC DRIVE UNIT
A

Figure 1

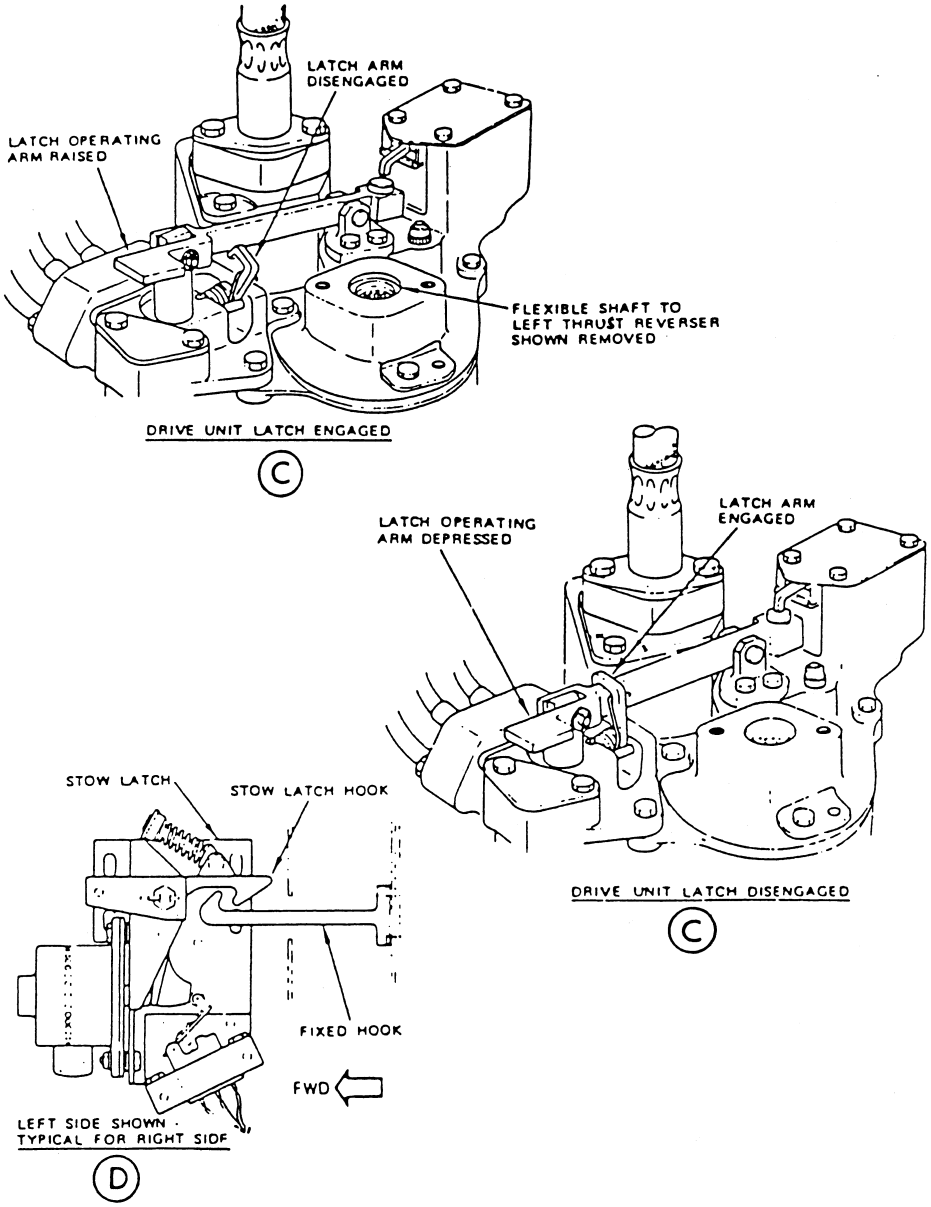

LATCH ARM
DISENGAGED
LATCH OPERATING
ARM RAISED
FLEXIBLE SHAFT TO
LEFT THRUST REVERSER
SHOWN REMOVED
DRIVE UNIT LATCH ENGAGED
C
LATCH OPERATING
ARM DEPRESSED
LATCH ARM
ENGAGED
DRIVE UNIT LATCH DISENGAGED
C
STOW LATCH
STOW LATCH HOOK
FIXED HOOK
FWD
LEFT SIDE SHOWN
TYPICAL FOR RIGHT SIDE
D

Figure 2

AIRBUS INDUSTRIE
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-18 AIRBUS INDUSTRIE: Amendment 39-11742. Docket 99-NM-251-AD. Supersedes AD 96-11-05, Amendment 39-9630.

Applicability: The following models, certificated in any category: Model A300 and A300-600 series airplanes, as listed in Airbus Service Bulletins A300-54-0073 and A300-54-6014, both Revision 1, dated March 28, 1994; and Model A310 series airplanes, except those on which Airbus Modification 10149 has been accomplished.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (m)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking, which could result in reduced structural integrity of the engine pylon's lower spar and possible separation of the engine from the airplane, accomplish the following:

RESTATEMENT OF CERTAIN REQUIREMENTS OF AD 96-11-05:

Eddy Current Inspections

(a) For Model A300 series airplanes equipped with General Electric CF6-50C engines, and having pylons that have not been modified in accordance with Airbus Industrie Service Bulletin A300-54-0080, Revision 1, dated January 16, 1995: Prior to the accumulation of 10,900 total landings, or within 500 landings after June 28, 1996 (the effective date of AD 96-11-05, amendment 39-9630), whichever occurs later, perform an internal eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-0073, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the inspection thereafter at intervals not to exceed 6,700 landings.

(2) If any crack is found that is less than 35 millimeters (1.38 inches), prior to further flight, stop-drill the crack in accordance with the procedures specified in Section 51-41-10 of the Structural Repair Manual (SRM). Thereafter, prior to the accumulation of 250 landings after crack discovery, repair in accordance with the service bulletin. Prior to the accumulation of 17,900 landings after accomplishing the repair, perform an eddy current inspection to detect cracks at the stiffener ends, ribs 6 and 7, at the edge of the holes made during the repair and on the fasteners located at the edge of the doubler, in accordance with the service bulletin.

(i) If no crack is found, repeat the inspection required by paragraph (a)(2) of this AD thereafter at intervals not to exceed 15,000 landings.

(ii) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent).

(3) If any crack is found that is greater than or equal to 35 mm (1.38 in.), prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(b) For Model A300 series airplanes equipped with General Electric CF6-50C engines, and having pylons that have been modified in accordance with Airbus Industrie Service Bulletin A300-54-0080, Revision 1, dated January 16, 1995: Prior to the accumulation of 30,300 landings since installation of the modification, or within 500 landings after June 28, 1996, whichever occurs later, perform an eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-0073, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the eddy current inspection thereafter at intervals not to exceed 21,300 landings.

(2) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(c) For Model A300 series airplanes equipped with Pratt & Whitney JT9D-59A engines, and having pylons that have not been modified in accordance with Airbus Industrie Service Bulletin A300-54-0080, Revision 1, dated January 16, 1995: Prior to the accumulation of 8,600 total landings, or within 500 landings after June 28, 1996, whichever occurs later, perform an internal eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-0073, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the inspection thereafter at intervals not to exceed 5,700 landings.

(2) If any crack is found that is less than 35 mm (1.38 in.), prior to further flight, stop-drill the crack in accordance with the procedures specified in Section 51-41-10 of the SRM. Thereafter, prior to the accumulation of 250 landings after crack discovery, repair in accordance with the service bulletin. Prior to the accumulation of 14,200 landings after accomplishing the repair, perform an eddy current inspection to detect cracks at the stiffener ends, ribs 6 and 7, at the edge of the holes made during the repair and on the fasteners located at the edge of the doubler, in accordance with the service bulletin.

(i) If no crack is found, repeat the inspection required by paragraph (c)(2) of this AD thereafter at intervals not to exceed 12,800 landings.

(ii) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or by the DGAC (or its delegated agent).

(3) If any crack is found that is greater than or equal to 35 mm (1.38 in.), prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(d) For Model A300 series airplanes equipped with Pratt & Whitney JT9D-59A engines, and having pylons that have been modified in accordance with Airbus Industrie Service Bulletin A300-54-0080, Revision 1, dated January 16, 1995: Prior to the accumulation of 24,000 landings since installation of the modification, or within 500 landings after
June 28, 1996, whichever occurs later, perform an eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-0073, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the eddy current inspection thereafter at intervals not to exceed 18,200 landings.

(2) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(e) For Model A300-600 series airplanes equipped with General Electric CF6-80C2 engines, and having pylons that have not been modified in accordance with Airbus Industrie Service Bulletin A300-54-6020, dated February 22, 1994: Prior to the accumulation of 9,400 total landings, or within 500 landings after June 28, 1996, whichever occurs later, perform an internal eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-6014, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the inspection thereafter at intervals not to exceed 6,100 landings.

(2) If any crack is found that is less than or equal to 35 mm (1.38 in.), prior to further flight, stop-drill the crack in accordance with the procedures specified in Section 51-41-10 of the SRM. Thereafter, prior to the accumulation of 250 landings after crack discovery, repair in accordance with the service bulletin. Prior to the accumulation of 15,600 landings after accomplishing the repair, perform an eddy current inspection to detect cracks at the stiffener ends, ribs 6 and 7, at the edge of the holes made during the repair and on the fasteners located at the edge of the doubler, in accordance with the service bulletin.

(i) If no crack is found, repeat the inspection required by paragraph (e)(2) of this AD thereafter at intervals not to exceed 13,600 landings.

(ii) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(3) If any crack is found that is greater than or equal to 35 mm (1.38 in.), prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(f) For Model A300-600 series airplanes equipped with General Electric CF6-80C2 engines, and having pylons that have been modified in accordance with Airbus Industrie Service Bulletin A300-54-6020, dated February 22, 1994: Prior to the accumulation of 26,400 landings since installation of the modification, or within 500 landings after June 28, 1996, whichever occurs later, perform an eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-6014, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the eddy current inspection thereafter at intervals not to exceed 19,400 landings.

(2) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(g) For Model A300-600 series airplanes equipped with Pratt & Whitney JT9D-7R4 or PW 4000 engines, and having pylons that have not been modified in accordance with Airbus Industrie Service Bulletin A300-54-6020, dated February 22, 1994: Prior to the accumulation of 5,700 total landings, or within 500 landings after June 28, 1996, whichever occurs later, perform an internal eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-6014, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the inspection thereafter at intervals not to exceed 4,400 landings.

(2) If any crack is found that is less than 35 mm (1.38 in.), prior to further flight, stop-drill the crack in accordance with the procedures specified in Section 51-41-10 of the SRM. Thereafter, prior to the accumulation of 250 landings after crack discovery, repair in accordance with the service bulletin. Prior to the accumulation of 10,100 landings after accomplishing the repair, perform an eddy current inspection to detect cracks at the stiffener ends, ribs 6 and 7, at the edge of the holes made during the repair and on the fasteners located at the edge of the doubler, in accordance with the service bulletin.

(i) If no crack is found, repeat the inspection required by paragraph (g)(2) of this AD thereafter at intervals not to exceed 10,000 landings.

(ii) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(3) If any crack is found that is greater than or equal to 35 mm (1.38 in.), prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(h) For Model A300-600 series airplanes equipped with Pratt & Whitney JT9D-7R4 or PW 4000 engines, and having pylons that have been modified in accordance with Airbus Industrie Service Bulletin A300-54-6020, dated February 22, 1994: Prior to the accumulation of 17,000 landings since installation of the modification, or within 500 landings after June 28, 1996, whichever occurs later, perform an eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A300-54-6014, Revision 1, dated March 28, 1994.

(1) If no crack is found, repeat the eddy current inspection thereafter at intervals not to exceed 14,500 landings.

(2) If any crack is found, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

NEW REQUIREMENTS OF THIS AD

New and Repetitive Inspections for Model A310 Series Airplanes

(i) For Model A310 series airplanes on which the modification specified in Airbus Service Bulletin A310-54-2023, dated October 15, 1993, has not been accomplished: Perform an eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A310-54-2017, Revision 03, dated June 11, 1999, at the applicable time specified in paragraph (i)(1), (i)(2), or (i)(3) of this AD.

(1) For airplanes that have accumulated fewer than 10,000 total landings as of the effective date of this AD: Inspect prior to the accumulation of 7,000 total landings, or within 1,500 landings after the effective date of this AD, whichever occurs later.

(2) For airplanes that have accumulated 10,000 total landings or more and fewer than 20,000 total landings as of the effective date of this AD: Inspect within 1,000 landings after the effective date of this AD.

(3) For airplanes that have accumulated 20,000 total landings or more as of the effective date of this AD: Inspect within 500 landings after the effective date of this AD.

(j) If no crack is found during the inspection required by paragraph (i) of this AD, accomplish the actions specified by either paragraph (j)(1) or (j)(2) of this AD.

(1) Repeat the inspection thereafter at intervals not to exceed 6,400 landings. Or

(2) Prior to further flight, modify the lower spar between ribs 6 and 7 in accordance with Airbus Industrie Service Bulletin A310-54-2023, dated October 15, 1993, and thereafter accomplish the actions required by paragraph (l) of this AD.

(k) If any crack is found during any inspection required by paragraph (i) or (j) of this AD, accomplish the actions required by paragraph (k)(1) or (k)(2) of this AD, as applicable.

(1) If the crack is less than 35 mm (1.38 in.), prior to further flight, repair in accordance with Airbus Industrie Service Bulletin A310-54-2017, Revision 03, dated June 11, 1999. Thereafter, within 13,600 landings after accomplishing the repair, perform an eddy current inspection to detect cracks at the stiffener ends, ribs 6 and 7, at the edge of the holes made during the repair, and on the fasteners located at the end of the doubler, in accordance with the service bulletin.

(i) If no crack is found during the inspection required by paragraph (k)(1) of this AD, repeat the inspection required by paragraph (i) of this AD thereafter at intervals not to exceed 11,600 landings.

(ii) If any crack is found during the inspection required by paragraph (k)(1) of this AD, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(2) If the crack is equal to or greater than 35 mm (1.38 in.), prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

(l) For Model A310 series airplanes on which the modification specified in Airbus Industrie Service Bulletin A310-54-2023, dated October 15, 1993, has been accomplished: Within 23,000 landings after accomplishment of the modification, or within 90 days after the effective date of this AD, whichever occurs later, perform an eddy current inspection to detect cracks in the lower spar axis of the pylons between ribs 6 and 7, in accordance with Airbus Industrie Service Bulletin A310-54-2017, Revision 03, dated June 11, 1999.

(1) If no crack is found, repeat the inspection thereafter at intervals not to exceed 15,500 landings.

(2) If any crack is found during any inspection required by paragraph (l) or (l)(1) of this AD, prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent).

Alternative Methods of Compliance

(m) (1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

(2) Alternate methods of compliance approved previously in accordance with AD 96-11-05, Amendment 39-9630, for paragraphs (a) through (h) of that AD, are approved as alternative methods of compliance with paragraphs (a) through (h) of this AD.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(n) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(o) Except as required by paragraphs (a)(2), (a)(2)(ii), (a)(3), (b)(2), (c)(2), (c)(2)(ii), (c)(3), (d)(2), (e)(2), (e)(2)(ii), (e)(3), (f)(2), (g)(2), (g)(2)(ii), (g)(3), (h)(2), (k)(1)(ii), (k)(2), and (l)(2), the actions shall be done in accordance with the following Airbus service bulletins:

Airbus Service Bulletin Number	Revision Level	Service Bulletin Date
A300-54-0073,	1	March 28, 1994
A300-54-6014,	1	March 28, 1994
A310-54-2017,	03	June 11, 1999
A310-54-2023,	Original	October 15, 1993

(1) The incorporation by reference of Airbus Service Bulletin A310-54-2017, Revision 03, dated June 11, 1999, is approved by the Director of the Federal Register, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of the remaining service bulletins was approved previously by the Director of the Federal Register as of June 28, 1996 (61 FR 26091, May 24, 1996).

(3) Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in French airworthiness directives 1999-239-287(B) and 1993-228-154(B)R3, both dated June 2, 1999.

(p) This amendment becomes effective on June 30, 2000.

5 2000-10-18

FOR FURTHER INFORMATION CONTACT:
Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on May 16, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2000-11

ISRAEL AIRCRAFT INDUSTRIES
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-19 ISRAEL AIRCRAFT INDUSTRIES, LTD.: Amendment 39-11743. Docket 99-NM-360-AD.

Applicability: Model 1125 Westwind Astra and Astra SPX series airplanes, serial numbers 004 through 115 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent ice accumulation on the airplane leading edges, which could result in reduced controllability of the airplane, accomplish the following:

Modification

(a) Within 1 year after the effective date of this AD, replace the pneumatic de-icing boot pressure indicator switch with a switch that activates the flight deck indicator light at 15 pounds per square inch gage, in accordance with Astra Alert Service Bulletin 1125-30A-199, dated April 17, 2000, or in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) Except as provided by paragraph (a) of this AD, the actions shall be done in accordance with Astra Alert Service Bulletin 1125-30A-199, dated April 17, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Galaxy Aerospace Corporation, One Galaxy Way, Fort Worth Alliance Airport, Fort Worth, Texas 76177. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in Israeli airworthiness directive 30-00-02-05, dated February 24, 2000.

(e) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149

Issued in Renton, Washington, on May 16, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-21 BOEING: Amendment 39-11745. Docket 2000-NM-111-AD.

Applicability: Model 737-300, -400, and -500 series airplanes equipped with IPECO flightcrew seats; as listed in Boeing Alert Service Bulletin 737-25A1363, dated November 5, 1998; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent uncommanded movement of the flightcrew seats during acceleration and take-off of the airplane, accomplish the following:

One-Time Inspection

(a) Within 90 days after the effective date of this AD, perform a one-time general visual inspection of the seat locks and seat tracks of the flightcrew seats to ensure that the seats lock in position and to verify that lock nuts and bolts of adequate length are installed on the rear tracklock bracket, in accordance with Boeing Alert Service Bulletin 737-25A1363, dated November 5, 1998.

(1) If the seat lock pin fully engages in all lock positions of the seat track, and the rear tracklock bracket is correctly installed, no further action is required by this AD.

General Visual Inspection

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Corrective Action

(2) If the seat lock pin does not fully engage in all positions of the seat track, and lock nuts and bolts of adequate length are not installed on the rear tracklock bracket, prior to further flight, install lock nuts and bolts of adequate length on the tracklock bracket and re-align the seat tracks, in accordance with the alert service bulletin.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions shall be done in accordance with Boeing Alert Service Bulletin 737-25A1363, dated November 5, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on June 12, 2000.

FOR FURTHER INFORMATION CONTACT:
Keith Ladderud, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington; telephone (425) 227-2780; fax (425) 227-1181.

Issued in Renton, Washington, on May 18, 2000.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-10-23 BOEING: Amendment 39-11748. Docket 97-NM-88-AD. Supersedes AD 97-26-21, Amendment 39-10264.

Applicability: Model 747-100, 747-200, 747-300, 747SR, and 747SP series airplanes; having line positions 201 through 886 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking of the longeron splice fittings at stringer 11, which could result in reduced controllability of the horizontal stabilizer, accomplish the following:

Initial Inspection

(a) Perform a one-time detailed visual inspection to detect cracking of the longeron fittings at stringer 11, on the left and right sides at body station 2598, at the time specified in paragraph (a)(1) or (a)(2) of this AD, as applicable, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2410, Revision 2, dated October 30, 1997, including Addendum; or Boeing Service Bulletin 747-53A2410, Revision 3, dated March 12, 1998, including Addendum. After the effective date of this AD, only Revision 3 shall be used.

(1) For airplanes that have accumulated fewer than 17,000 total flight cycles or 63,000 total flight hours as of the effective date of this AD: Inspect at the later of the times specified in paragraph (a)(1)(i) or (a)(1)(ii) of this AD.

(i) Prior to the accumulation of 17,000 total flight cycles or 63,000 total flight hours, whichever occurs first.

(ii) Within 1,800 flight cycles or 7,000 flight hours after the effective date of this AD, whichever occurs first.

(2) For airplanes that have accumulated 17,000 total flight cycles or more, or 63,000 total flight hours or more, as of the effective date of this AD: Inspect at the earlier of the times specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this AD.

(i) Prior to the accumulation of 22,000 total flight cycles or 78,000 total flight hours, whichever occurs first.

(ii) Within 1,800 flight cycles or 7,000 flight hours after the effective date of this AD, whichever occurs first.

NOTE 2: Where there are differences between the AD and the service bulletin, the AD prevails.

NOTE 3: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Repetitive Inspections

(b) If no crack is found during the inspection required by paragraph (a) of this AD, repeat the inspection one time at the later of the times specified in paragraphs (b)(1) and (b)(2) of this AD, and thereafter at intervals not to exceed 3,000 flight cycles or 18,000 flight hours, whichever occurs first.

(1) Within 3,000 flight cycles or 18,000 flight hours after accomplishment of the most recent inspection, whichever occurs first.

(2) Within 1,800 flight cycles or 7,000 flight hours after the effective date of this AD, whichever occurs first.

Replacement and Repetitive Inspections

(c) If any crack is found during any inspection required by paragraph (a) or (b) of this AD: Prior to further flight, replace the cracked fitting with a new fitting, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2410, Revision 2, dated October 30, 1997, including Addendum; or Boeing Service Bulletin 747-53A2410, Revision 3, dated March 12, 1998, including Addendum. After the effective date of this AD, only Revision 3 shall be used. Then, repeat the inspection specified in paragraph (a) of this AD at the later of the times specified in paragraphs (c)(1) and (c)(2) of this AD, and thereafter at intervals not to exceed 3,000 flight cycles or 18,000 flight hours, whichever occurs first.

(1) Within 17,000 flight cycles or 63,000 flight hours after replacement, whichever occurs first.

(2) Within 1,800 flight cycles or 7,000 flight hours after the effective date of this AD, whichever occurs first.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with Boeing Alert Service Bulletin 747-53A2410, Revision 2, including Addendum, dated October 30, 1997; or Boeing Service Bulletin 747-53A2410, Revision 3, including Addendum, dated March 12, 1998.

(1) The incorporation by reference of Boeing Service Bulletin 747-53A2410, Revision 3, including Addendum, dated March 12, 1998, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Alert Service Bulletin 747-53A2410, Revision 2, including Addendum, dated October 30, 1997, was approved previously by the Director of the Federal Register as of January 13, 1998 (62 FR 67550, December 29 1997).

(3) Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:

Rick Kawaguchi, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1153; fax (425) 227-1181

Issued in Renton, Washington, on May 18, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

MCDONNELL DOUGLAS
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-11-01 MCDONNELL DOUGLAS: Amendment 39-11749. Docket 99-NM-161-AD.

Applicability: Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87) series airplanes; Model MD-90-30 series airplanes; and Model MD-88 airplanes; manufacturer's fuselage numbers 995 through 2243 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To ensure that insulation blankets constructed of metallized polyethyleneteraphthalate (MPET) are removed from the fuselage, accomplish the following:

Inspection

(a) Within 5 years after the effective date of this AD, determine whether, and at what locations, insulation blankets constructed of MPET, are installed. When markings are not visible, the determination shall be made by using known MPET material as a comparison sample to assist in the identification.

NOTE 2: Insulation blankets that are marked with "DMS 2072, Type 2, Class 1, Grade A;" "DMS 2072, Type 2, Class 1;" or "DMS 1996, Type 1;" are constructed of MPET.

Corrective Actions

(b) For insulation blankets that are determined not to be constructed of MPET, no further action is required by this AD.

(c) For insulation blankets that are determined to be constructed of MPET, within 5 years after the effective date of this AD, replace the MPET insulation blankets with new insulation blankets that have been approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. The blankets shall be replaced in accordance with the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD-90-25-015, Revision 01, dated November 5, 1997 (for Model MD-90-30 series airplanes); or McDonnell Douglas Service Bulletin MD80-25-355, Revision 01, dated November 5, 1997 (for Model DC-9-80 series airplanes and Model MD-88 airplanes); as applicable. The replacement insulation blankets must be constructed of materials tested in accordance with Appendix 1 of this AD, or in accordance with a method approved by the Manager, Los Angeles ACO.

NOTE 3: Although this paragraph allows up to 5 years for the required replacement, the FAA anticipates that operators will comply at the earliest practicable maintenance opportunity.

NOTE 4: Only one of the two metallized Tedlar covers specified in the service bulletins has been shown to have successfully passed the testing of the American Society for Testing and Materials (ASTM) flammability standard and is considered acceptable for compliance with the requirements of paragraph (c) of this AD.

Spares

(d) As of the effective date of this AD, no person shall install an MPET insulation blanket on any airplane.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles ACO. Operators shall submit their requests through an appropriate FAA PMI, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(g) The blankets shall be replaced in accordance with the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD-90-25-015, Revision 01, dated November 5, 1997; or McDonnell Douglas Service Bulletin MD80-25-355, Revision 01, dated November 5, 1997; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(h) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:

Robert Stacho, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5334; fax (562) 627-5210.

Issued in Renton, Washington, on May 19, 2000.

John J. Hickey, Manager, Transport Airplane Directorate, Aircraft Certification Service.

APPENDIX 1

Test for Materials Replacing Metallized PET Thermal Acoustical Insulation Film

February 16, 2000

This test method is used to evaluate the flammability and flame propagation characteristics of thermal/acoustic insulation when exposed to both a radiant heat source and a flame.

(a) Definitions.

(1) Thermal/Acoustic Insulation. Thermal/acoustic insulation is defined as a material or system of materials used to provide thermal and/or acoustic protection. Examples include a film-covering material encapsulating a core material such as fiberglass or other batting material and foams.

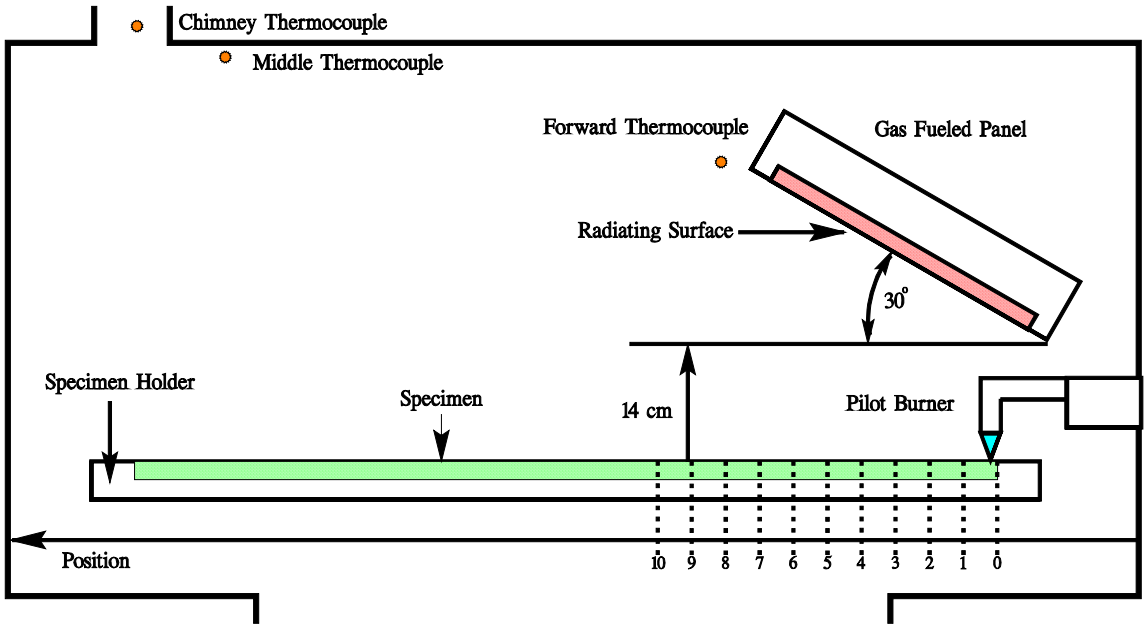
(2) Radiant Heat Source. The radiant heat source is an air/gas fueled radiant heat energy panel.

(b) Test Apparatus (as schematically shown in figure 1).

(1) Radiant Panel Test Chamber. Tests will be conducted in the radiant panel test chamber as used in ASTM-Designation: E 648. It is suggested that the test chamber be located under an exhaust hood to facilitate clearing the chamber of smoke after each test. The radiant panel test chamber shall consist of an enclosure 55 inches (1400 mm) long by 19 1/2 inches (500 mm) deep by 28 inches (710 mm) above the test specimen. The sides, ends, and top shall be insulated with a fibrous ceramic insulation such as Kaowool™ board. One side shall be provided with an approximately 48 by 6 inch (1219 by 152mm) draft tight, high temperature, heat resistant glass observation window, to facilitate viewing the sample during testing. On the same side and below the window is a door which, when open, allows the specimen platform to be moved out for mounting or removal of test specimens. The bottom of the test chamber shall consist of a sliding steel platform, which has provisions for securing the test specimen holder in a fixed and level position. The top of the chamber shall have an exhaust stack with interior dimensions of 4 inches (102mm) wide by 15 inches (380 mm) deep by 12.5 inches (318mm) high at the opposite end of the chamber from the radiant energy source.

(2) Radiant Heat Source. The radiant heat energy source will be a panel of porous refractory material mounted in a cast iron frame, with a radiation surface of 12 by 18 inches (305 by 457mm). It shall be capable of operating at temperatures up to 150 °F (81 °C) (Figure 1).

Figure 1.



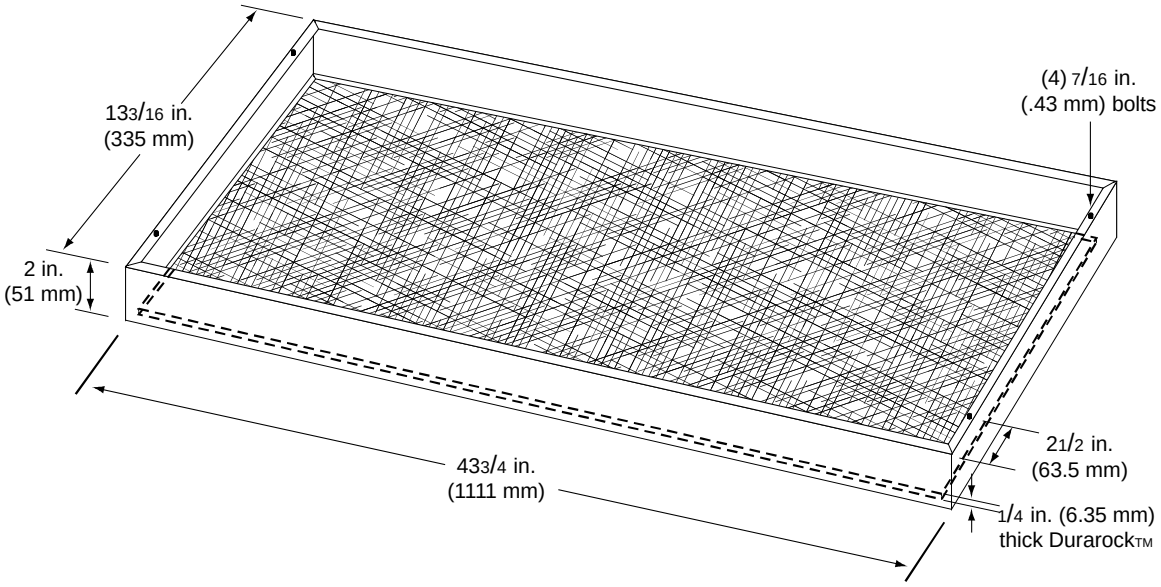
(i) Radiant Panel Fuel System. The radiant panel fuel will be propane (liquid petroleum gas – 2.1 UN 1075). The panel fuel system shall consist of a venturi-type aspirator for mixing gas and air at approximately atmospheric pressure. Suitable instrumentation will be necessary for monitoring and controlling the flow of fuel and air to the panel. Instrumentation will include an air flow gauge, an air flow regulator, a gas pressure gauge, and a rotameter for measuring gas flow.

(ii) Radiant Panel Placement. The panel will be mounted in the chamber at 30 degrees to the horizontal specimen plane.

(3) Specimen Holding System.

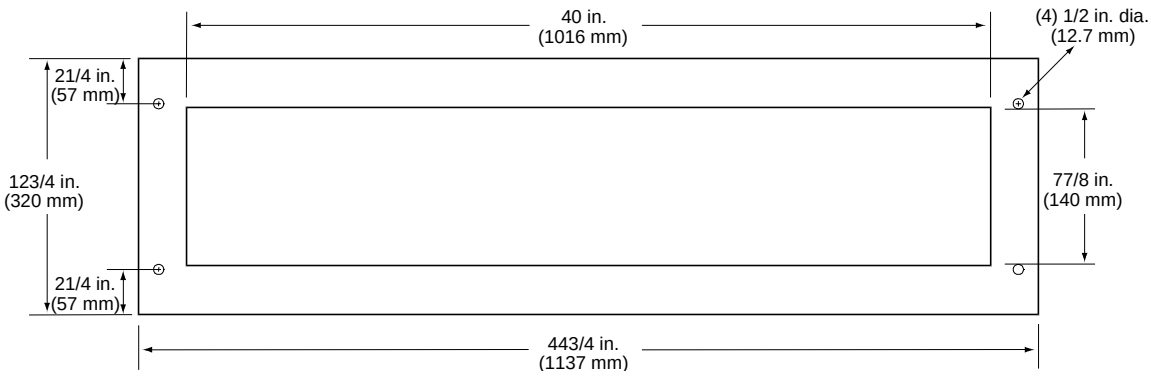
(i) The sliding platform serves as the housing for test specimen placement. A ¼ inch (6.35mm) sheet of Duraroc ä, or other non-combustible base, measuring 43 ¼ inches by 12 1/2 inches (1098 by 317.5mm) will be placed in the open bottom (base) of the sliding platform. It is necessary to cut the non-combustible base into two pieces for placement in the bottom of the platform, since it will be supported by a ¾-inch (19.1mm) lip that extends around the bottom of the platform base. It is suggested that the shortest piece be placed at the end furthest from the radiant panel (figure 2). A ½ inch (13mm) piece of Kaowoo board or other high temperature material measuring 41 ½ by 8 ¼ inches (1054 by 210mm) will be attached to the back side of the platform. This board will serve as a heat retainer and will protect the test specimen from excessive preheating. The height of this board must not be too high such that it will impede the sliding platform movement (in and out) of the test chamber.

Figure 2: Sliding Platform



(ii) The test specimen will be placed horizontally on the non-combustible base. A stainless steel retaining frame (AISI Type 300 UNA-NO8330), or equivalent, having a thickness of 0.078 inches (1.98mm) and overall dimensions of 44 3/4 by 12 3/4 inches (1137 by 320mm) with a specimen opening of 40 by 7 7/8 (1016 by 140mm) will be placed on top of the test specimen. The retaining frame will have two ½ inch (12.7mm) holes drilled at each end for positioning the frame to the two stud bolts at each end of the sliding platform (figure 3).

Figure 3: Stainless Steel Retaining Frame



(iii) A securing frame (acting as a clamping mechanism) constructed of mild steel will be placed over the test specimen. The securing frame overall dimensions are 42 ½ by 10 ½ inches (1080 by 267mm) with a specimen opening of 39 ½ by 7 ½ inches (1003 by190mm). Hence, the exposed area of test specimen exposed to the radiant panel is 39 ¼ by 7 ¼ inches (996 by 184mm). See figure 4. It is not necessary to physically fasten the securing frame over the test specimen due to the weight of the frame itself.

(4) Pilot Burner. The pilot burner used to ignite the specimen is a commercial propane venturi torch with an axially symmetric burner tip having a propane supply tube with an orifice diameter of 0.003 inches (0.076mm). The propane flow is adjusted to produce a pencil flame blue inner cone length of ½ inch (13mm). There will be a means provided to move the burner out of the ignition position so that the flame is horizontal and at least 2 inches (50mm) above the specimen plane.

(5) Thermocouples. Three 24 American Wire Gauge (AWG) Type K (Chromel-Alumel) thermocouples will be installed in the test chamber for temperature monitoring. All three are inserted into the chamber through three small holes drilled through the top of the chamber. One thermocouple is placed 2 inches (51mm) from the end of the radiant panel and approximately 16 inches (406mm) above the test specimen. The second thermocouple is placed 5 inches (127mm) from the first thermocouple and approximately 16 inches (406mm) from the sample. The third thermocouple is located in the chimney approximately 38 inches (965mm) above the specimen.

(6) Calorimeter. The calorimeter will be a one inch cylindrical water-cooled, total heat flux density, foil type Gardon Gage that has a range of 0 to 5 BTU/ft^2- second (0 to 5.6 Watts/cm^2).

(7) Calorimeter Calibration Specification and Procedure.

(i) Calorimeter Specification.

(A) Foil diameter will be 0.25 +/-0.005 inches (6.35+/-0.13mm).

(B) Foil thickness will be 0.0005 +/-0.0001 inches (0.013+/-0.0025mm).

(C) Foil material will be thermocouple grade Constantan.

(D) Temperature measurement will be a Copper Constantan thermocouple.

(E) The copper center wire diameter will be 0.0005 inches (0.013mm).

(F) The entire face of the calorimeter will be lightly coated with "Black Velvet" paint having an emissivity of 96 or greater.

(ii) Calorimeter Calibration.

(A) The calibration method will be by comparison to a like standardized transducer.

(B) The standardized transducer will meet the specification given in paragraph (6).

(C) It will be calibrated against a primary standard by the National Institute of Standards and Technology (NIST).

(D) The method of transfer will be a heated graphite plate.

(E) The graphite plate will be electrically heated, have a clear surface area on each side of the plate of at least 2 by 2 inches (51 by 51mm), and be 1/8 inch +/- 1/16 inch thick (3.2 +/- 1.6mm).

(F) The 2 transducers will be centered on opposite sides of the plates at equal distances from the plate.

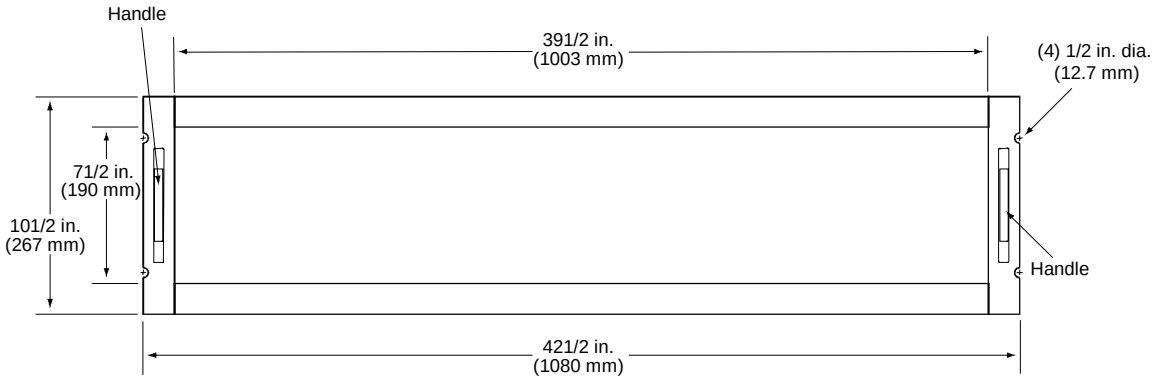
(G) The distance of the calorimeter to the plate will be no less than 0.0625 inches (1.6mm), nor greater than 0.375 inches (9.5mm).

(H) The range used in calibration will be at least 0-3.5 BTUs/ft^2 second (0- 3.9Watts/cm^2) and no greater than 0-5.6 BTUs/ft^2 second (0-5 Watts/cm^2).

(I) (I) The recording device used must record the 2 transducers simultaneously or at least within 1/10 second of each other.

(8) Calorimeter Fixture. With the sliding platform pulled out of the chamber, install a 2-rail fixture that has a travel range of 40 ¼ inches (1022mm) over the sliding platform. The dimension between the 2 rails is 2 11/16 inches (68mm). The rail fixture is screwed into the sliding panel, such that it is always directly under the geometric center of the radiant panel (figure 4). Push the platform into the chamber and insert the calorimeter. The calorimeter, which is mounted in an insulated housing, fits in the rail opening but has enough clearance such that it may be moved along the rail for heat flux readings. The top surface of the calorimeter must be level with the rails.

Figure 4: Angle Iron (1.5x1.5) Securing Frame
*NOTE: All Seams Welded



(9) Instrumentation. A calibrated recording device with an appropriate range or a computerized data acquisition system will be provided to measure and record the outputs of the calorimeter and the thermocouples. The data acquisition system must be capable of recording the calorimeter output every second.

(10) Timing Device. A stopwatch or other device, accurate to +/- 1second/hour, will be provided to measure the time of application of the pilot burner flame.

(c) Test Specimens.

(1) Specimen Preparation. A minimum of three test specimens will be prepared and tested.

(2) Construction. Cut a piece of core material such as foam or fiberglass. If fiberglass is used, cut the material 43 ½ (+/-1/4) inches long (1093mm) (+/-6.3mm) by 12 1/2 inches (305.1mm) wide. If using foam, cut the material 41 ¼ inches (1039mm) by 11 inches wide (279mm) by 1 ½ inches (381mm) high. Cut a piece of film cover material (if used) large enough to cover the core material. It is permissible to staple the film cover at the ends, as they are not exposed to the radiant heat source. A piece or pieces of an inorganic/inert material such as Kaowoo or Marinit board may be placed in the bottom of the sliding platform holder if the sample is not thick enough to be level with the top of the sliding platform. The specimen thickness must be of the same thickness as installed in the airplane.

(d) Specimen Conditioning. The specimens will be conditioned at 70 +/- °F (21 +/- °C) and 55%+/- 10% relative humidity for a minimum of 24 hours prior to testing.

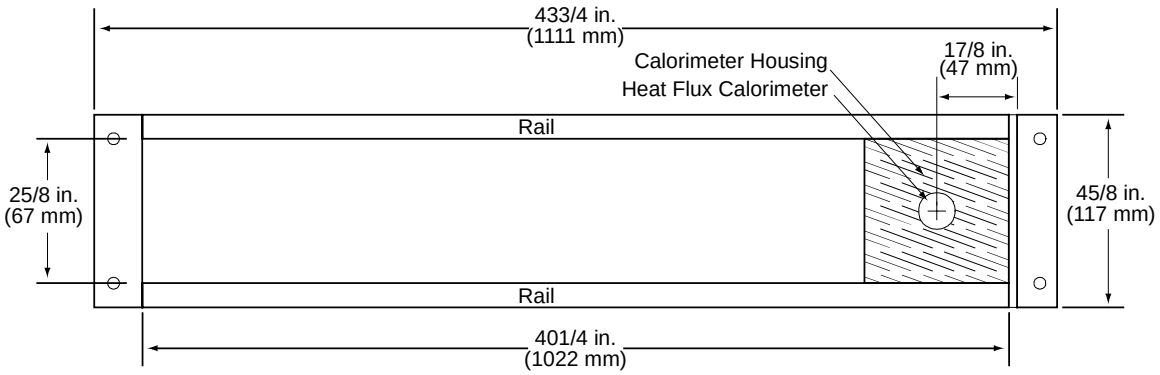
(e) Calibration.

(1) With the sliding platform out of the chamber, install the rail fixture. Push the platform back into the chamber, install the calorimeter (in its housing), and move the calorimeter to the "zero" position (figure 5). Close the bottom door located below the sliding platform. The centerline of the calorimeter is 1 7/8 inches (46mm) from the end of the sliding platform. This will be the "zero" position. The distance from the center of the calorimeter to the radiant panel surface at this point is 7.5 inches +/- 1/8 (191 mm +/- 3).

(i) Prior to igniting the radiant panel, ensure that the calorimeter face is clean and that there is water running through the calorimeter.

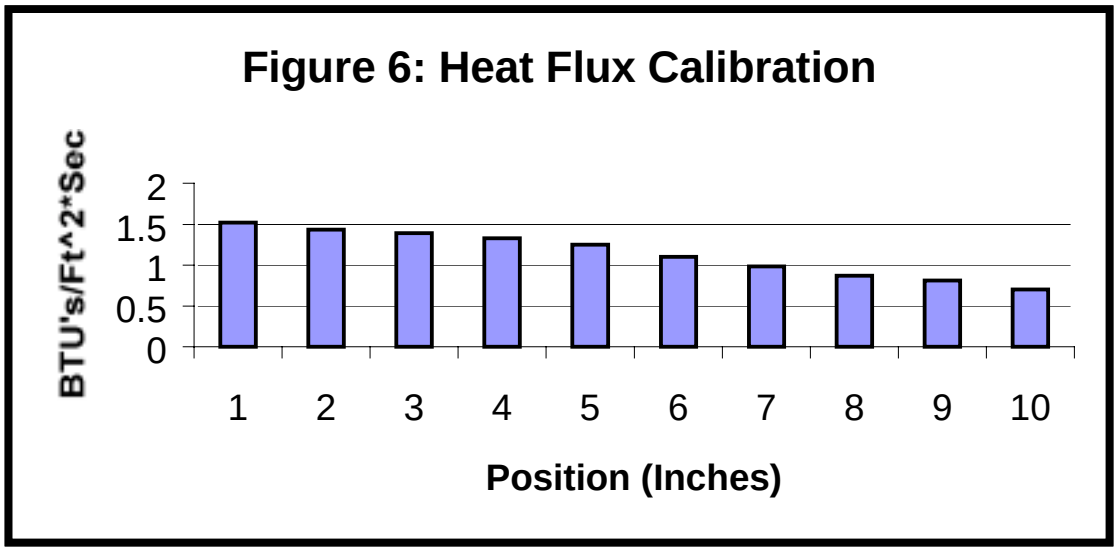
(2) Ignite the panel. Adjust the fuel/air mixture to achieve 1.5 BTUs/ft^2 –second +/-0.025 BTUs/ft^2 -second (1.9 Watts/cm^2 +/-0.025 Watts/cm^2) at the "zero" position. Allow the unit to reach steady state (this may take up to 1 hour). The pilot burner is off during this time. The temperature as measured by the thermocouple closest to the panel (forward) is approximately 110 °F (60 °C). The temperatures recorded by thermocouples 2 and 3 (thermocouple 3 located in chimney) are approximately 43 °F (23 °C) and 30 °F (13 °C), respectively.

Figure 5: Calorimeter Rail



(3) After steady-state conditions have been reached, move the calorimeter 2 inches (51mm) from the "zero" position and record the heat flux. Allow a minimum of 30 seconds at each position for the calorimeter to stabilize. Record at least 10 positions. (Figure 6 depicts a calibration profile.)

(4) It is not necessary to run a full heat flux calibration (minimum of 10 positions) each time the chamber is powered on. It is required that a heat flux measurement be taken at the "zero" position at the start of the test period (e.g., each morning) to ensure that the 1.5 BTU/ft^2 -second (1.9 Watts/cm^2) requirement be met. A full calibration should be run periodically.



(5) Open the bottom door, pull out the sliding platform, and remove the calorimeter and rail fixture.

(f) Test Procedure.

(1) Ignite the pilot burner. Ensure that it is at least 2 inches (51mm) above the top of the platform. The burner must not contact the specimen until the test begins.

(2) Place the test specimen in the sliding platform holder. Ensure that the test sample surface is level with the top of the platform. At "zero" point, the specimen surface is 7 ½ inches +/-1/8 (191mm +/-3) below the radiant panel.

(3) With film/fiberglass assemblies, it may be necessary to puncture small holes in the film cover to purge any air inside. This allows the operator to maintain the proper test specimen position (level with the top of the platform). The holes should be made in the sides and/or the corners of the test specimen using a needle-like tool.

(4) Place the retaining frame and the securing frame over the test specimen.

(5) A small mark should be placed on the "zero" point.

(6) Immediately push the sliding platform into the chamber and close the bottom door.

(7) Bring the pilot burner flame into contact with the center of the specimen such that the center line of the flame impinges on the “zero” point and simultaneously start the timer. The burner flame impinges the sample at an angle of approximately 20 degrees with the horizontal (front of the sliding platform).

(8) Leave the burner in position for 15 seconds and then remove to a position at least 2 inches (51mm) above the specimen.

(g) Report.

(1) Identify and describe the specimen being tested.

(2) Report any shrinkage or melting of the test specimen.

(3) Report the Burn length

(4) Report Extinguishing Time

(h) Requirements.

(1) During burner application, no flaming is allowed to propagate more than 2 inches (50.8mm) along the sample (to the left in figure 1) of the centerline of the flame.

(2) There shall be no flaming of the test sample after pilot burner removal.

MCDONNELL DOUGLAS
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT

2000-11-02 MCDONNELL DOUGLAS: Amendment 39-11750. Docket 99-NM-162-AD.

Applicability: Model DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, and DC-10-40 series airplanes, and Model MD-11 and -11F series airplanes; manufacturer's fuselage numbers 359 through 632 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To ensure that insulation blankets constructed of metallized polyethyleneteraphthalate (MPET) are removed from the fuselage, accomplish the following:

Inspection

(a) Within 5 years after the effective date of this AD, determine whether, and at what locations, insulation blankets constructed of MPET, are installed. When markings are not visible, the determination shall be made by using known MPET material as a comparison sample to assist in the identification.

NOTE 2: Insulation blankets that are marked with "DMS 2072, Type 2, Class 1, Grade A;" "DMS 2072, Type 2, Class 1;" or "DMS 1996, Type 1;" are constructed of MPET.

Corrective Actions

(b) For insulation blankets that are determined not to be constructed of MPET, no further action is required by this AD.

(c) For insulation blankets that are determined to be constructed of MPET, within 5 years after the effective date of this AD, replace the MPET insulation blankets with new insulation blankets that have been approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. The blankets shall be replaced in accordance with the Accomplishment Instructions of McDonnell Douglas Service Bulletin DC10-25-368, dated October 31, 1997 (for Model DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, and DC-10-40 series airplanes); or McDonnell Douglas Service Bulletin MD11-25-200, Revision 01, dated March 20, 1998 (for Model MD-11 and -11F series airplanes); as applicable. The replacement insulation blankets must be constructed of materials tested in accordance with Appendix 1 of this AD, or in accordance with a method approved by the Manager, Los Angeles ACO.

NOTE 3: Although this paragraph allows up to 5 years for the required replacement, the FAA anticipates that operators will comply at the earliest practicable maintenance opportunity.

NOTE 4: Only one of the two metallized Tedlar covers specified in the service bulletins has been shown to have successfully passed the testing of the American Society for Testing and Materials (ASTM) flammability standard and is considered acceptable for compliance with the requirements of paragraph (c) of this AD.

Spares

(d) As of the effective date of this AD, no person shall install an MPET insulation blanket on any airplane.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles ACO. Operators shall submit their requests through an appropriate FAA PMI, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(g) The blankets shall be replaced in accordance with the Accomplishment Instructions of McDonnell Douglas Service Bulletin DC10-25-368, dated October 31, 1997 (for Model DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, and DC-10-40 series airplanes); or McDonnell Douglas Service Bulletin MD11-25-200, Revision 01, dated March 20, 1998 (for Model MD-11 and -11F series airplanes); as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(h) This amendment becomes effective on June 30, 2000.

FOR FURTHER INFORMATION CONTACT:

Robert Stacho, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5334; fax (562) 627-5210.

Issued in Renton, Washington, on May 19, 2000.

John J. Hickey, Manager, Transport Airplane Directorate, Aircraft Certification Service.

APPENDIX 1

Test for Materials Replacing Metallized PET Thermal Acoustical Insulation Film

February 16, 2000

This test method is used to evaluate the flammability and flame propagation characteristics of thermal/acoustic insulation when exposed to both a radiant heat source and a flame.

(a) Definitions.

(1) Thermal/Acoustic Insulation. Thermal/acoustic insulation is defined as a material or system of materials used to provide thermal and/or acoustic protection. Examples include a film-covering material encapsulating a core material such as fiberglass or other batting material and foams.

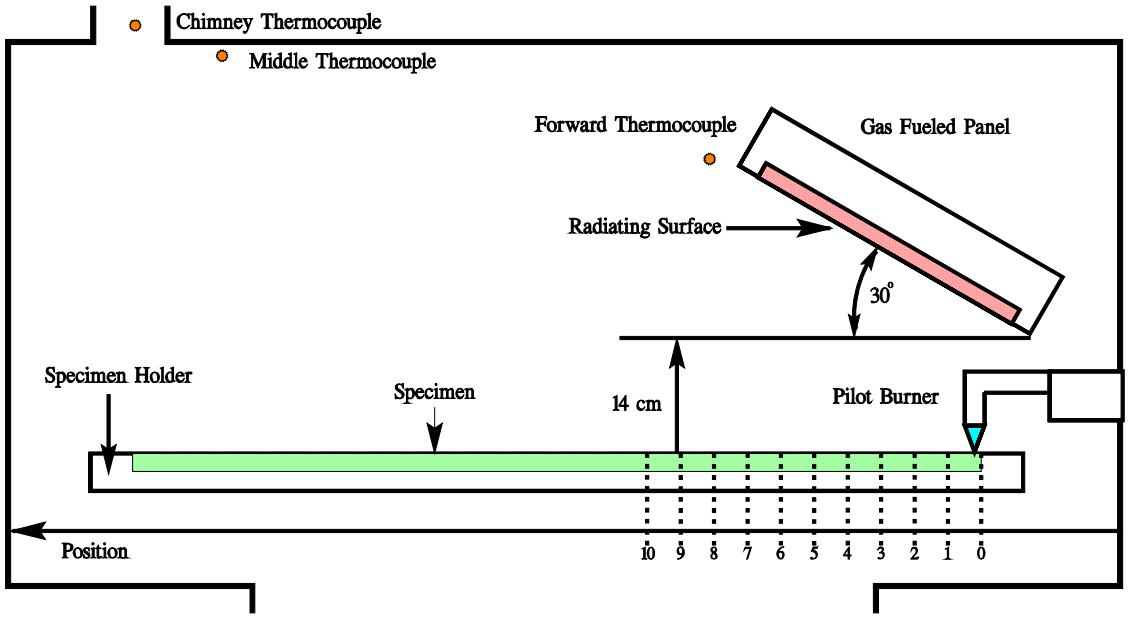
(2) Radiant Heat Source. The radiant heat source is an air/gas fueled radiant heat energy panel.

(b) Test Apparatus (as schematically shown in figure 1).

(1) Radiant Panel Test Chamber. Tests will be conducted in the radiant panel test chamber as used in ASTM-Designation: E 648. It is suggested that the test chamber be located under an exhaust hood to facilitate clearing the chamber of smoke after each test. The radiant panel test chamber shall consist of an enclosure 55 inches (1400 mm) long by 19 1/2 inches (500 mm) deep by 28 inches (710 mm) above the test specimen. The sides, ends, and top shall be insulated with a fibrous ceramic insulation such as Kaowool™ board. One side shall be provided with an approximately 48 by 6 inch (1219 by 152mm) draft tight, high temperature, heat resistant glass observation window, to facilitate viewing the sample during testing. On the same side and below the window is a door which, when open, allows the specimen platform to be moved out for mounting or removal of test specimens. The bottom of the test chamber shall consist of a sliding steel platform, which has provisions for securing the test specimen holder in a fixed and level position. The top of the chamber shall have an exhaust stack with interior dimensions of 4 inches (102mm) wide by 15 inches (380 mm) deep by 12.5 inches (318mm) high at the opposite end of the chamber from the radiant energy source.

(2) Radiant Heat Source. The radiant heat energy source will be a panel of porous refractory material mounted in a cast iron frame, with a radiation surface of 12 by 18 inches (305 by 457mm). It shall be capable of operating at temperatures up to 150 °F (81 °C) (Figure 1).

Figure 1.



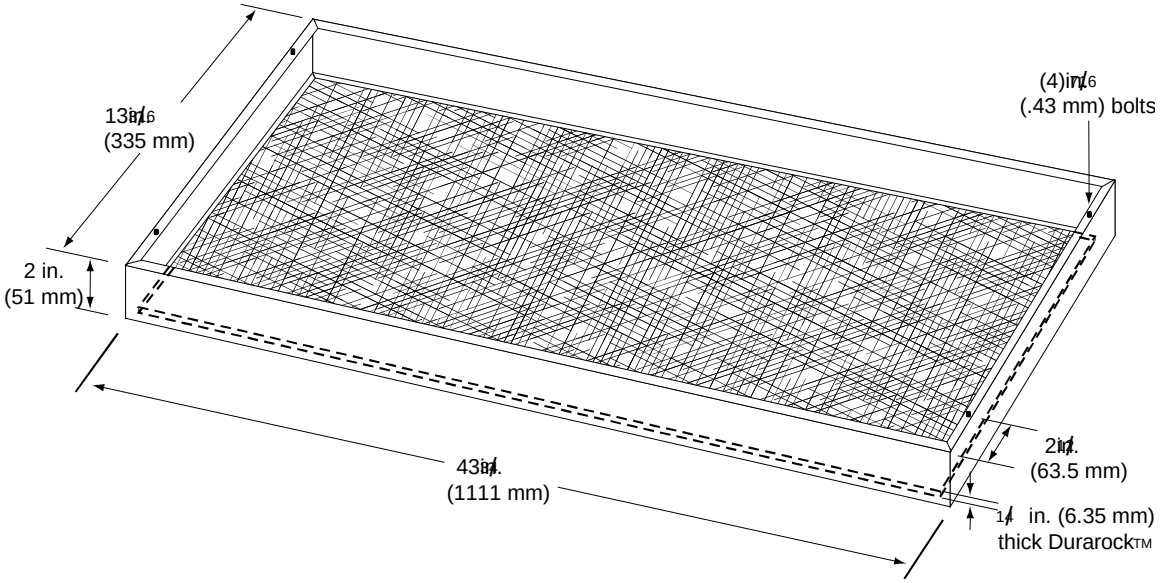
(i) Radiant Panel Fuel System. The radiant panel fuel will be propane (liquid petroleum gas – 2.1 UN 1075). The panel fuel system shall consist of a venturi-type aspirator for mixing gas and air at approximately atmospheric pressure. Suitable instrumentation will be necessary for monitoring and controlling the flow of fuel and air to the panel. Instrumentation will include an air flow gauge, an air flow regulator, a gas pressure gauge, and a rotameter for measuring gas flow.

(ii) Radiant Panel Placement. The panel will be mounted in the chamber at 30 degrees to the horizontal specimen plane.

(3) Specimen Holding System.

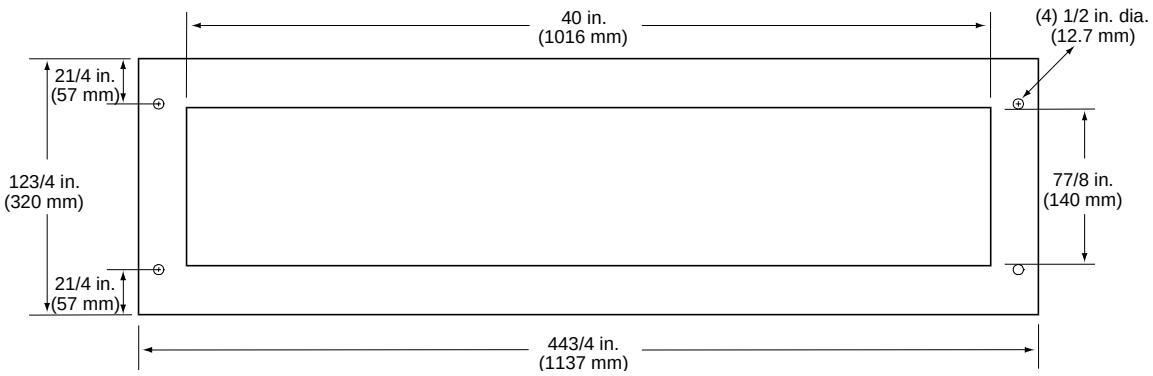
(i) The sliding platform serves as the housing for test specimen placement. A ¼ inch (6.35mm) sheet of Duraroc ä, or other non-combustible base, measuring 43 ¼ inches by 12 1/2 inches (1098 by 317.5mm) will be placed in the open bottom (base) of the sliding platform. It is necessary to cut the non-combustible base into two pieces for placement in the bottom of the platform, since it will be supported by a ¾-inch (19.1mm) lip that extends around the bottom of the platform base. It is suggested that the shortest piece be placed at the end furthest from the radiant panel (figure 2). A ½ inch (13mm) piece of Kaowoo board or other high temperature material measuring 41 ½ by 8 ¼ inches (1054 by 210mm) will be attached to the back side of the platform. This board will serve as a heat retainer and will protect the test specimen from excessive preheating. The height of this board must not be too high such that it will impede the sliding platform movement (in and out) of the test chamber.

Figure 2: Sliding Platform



(ii) The test specimen will be placed horizontally on the non-combustible base. A stainless steel retaining frame (AISI Type 300 UNA-NO8330), or equivalent, having a thickness of 0.078 inches (1.98mm) and overall dimensions of 44 3/4 by 12 3/4 inches (1137 by 320mm) with a specimen opening of 40 by 7 7/8 (1016 by 140mm) will be placed on top of the test specimen. The retaining frame will have two ½ inch (12.7mm) holes drilled at each end for positioning the frame to the two stud bolts at each end of the sliding platform (figure 3).

Figure 3: Stainless Steel Retaining Frame



(iii) A securing frame (acting as a clamping mechanism) constructed of mild steel will be placed over the test specimen. The securing frame overall dimensions are 42 ½ by 10 ½ inches (1080 by 267mm) with a specimen opening of 39 ½ by 7 ½ inches (1003 by190mm). Hence, the exposed area of test specimen exposed to the radiant panel is 39 ¼ by 7 ¼ inches (996 by 184mm). See figure 4. It is not necessary to physically fasten the securing frame over the test specimen due to the weight of the frame itself.

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(A) Foil diameter will be 0.25 +/-0.005 inches (6.35+/-0.13mm).

(B) Foil thickness will be 0.0005 +/-0.0001 inches (0.013+/-0.0025mm).

(C) Foil material will be thermocouple grade Constantan.

(D) Temperature measurement will be a Copper Constantan thermocouple.

(E) The copper center wire diameter will be 0.0005 inches (0.013mm).

(F) The entire face of the calorimeter will be lightly coated with "Black Velvet" paint having an emissivity of 96 or greater.

(ii) Calorimeter Calibration.

(A) The calibration method will be by comparison to a like standardized transducer.

(B) The standardized transducer will meet the specification given in paragraph (6).

(C) It will be calibrated against a primary standard by the National Institute of Standards and Technology (NIST).

(D) The method of transfer will be a heated graphite plate.

(E) The graphite plate will be electrically heated, have a clear surface area on each side of the plate of at least 2 by 2 inches (51 by 51mm), and be 1/8 inch +/- 1/16 inch thick (3.2 +/- 1.6mm).

(F) The 2 transducers will be centered on opposite sides of the plates at equal distances from the plate.

(G) The distance of the calorimeter to the plate will be no less than 0.0625 inches (1.6mm), nor greater than 0.375 inches (9.5mm).

(H) The range used in calibration will be at least 0-3.5 BTUs/ft^2 second (0- 3.9Watts/cm^2) and no greater than 0-5.6 BTUs/ft^2 second (0-5 Watts/cm^2).

(I) The recording device used must record the 2 transducers simultaneously or at least within 1/10 second of each other.

(8) Calorimeter Fixture. With the sliding platform pulled out of the chamber, install a 2-rail fixture that has a travel range of 40 ¼ inches (1022mm) over the sliding platform. The dimension between the 2 rails is 2 11/16 inches (68mm). The rail fixture is screwed into the sliding panel, such that it is always directly under the geometric center of the radiant panel (figure 4). Push the platform into the chamber and insert the calorimeter. The calorimeter, which is mounted in an insulated housing, fits in the rail opening but has enough clearance such that it may be moved along the rail for heat flux readings. The top surface of the calorimeter must be level with the rails.

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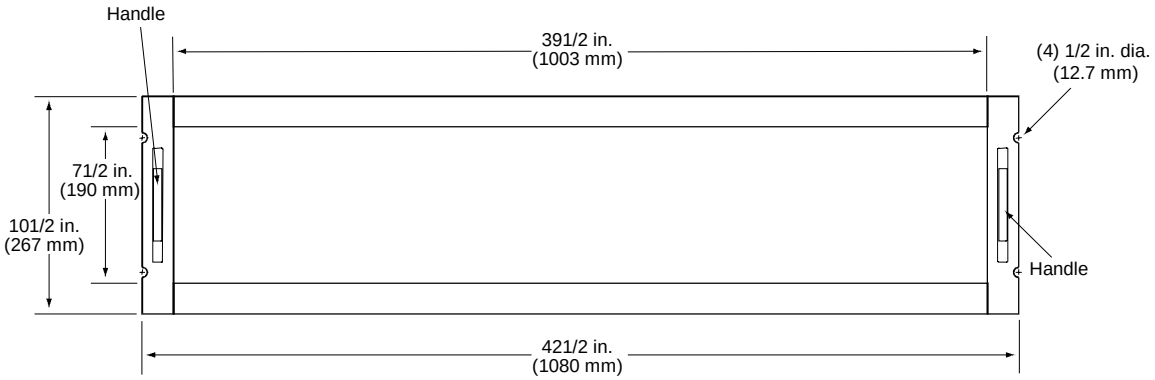


(9) Instrumentation. A calibrated recording device with an appropriate range or a computerized data acquisition system will be provided to measure and record the outputs of the calorimeter and the thermocouples. The data acquisition system must be capable of recording the calorimeter output every second.

(10) Timing Device. A stopwatch or other device, accurate to +/- 1second/hour, will be provided to measure the time of application of the pilot burner flame.

(c) Test Specimens.

(1) Specimen Preparation. A minimum of three test specimens will be prepared and tested.

(2) Construction. Cut a piece of core material such as foam or fiberglass. If fiberglass is used, cut the material 43 ½ (+/-1/4) inches long (1093mm) (+/-6.3mm) by 12 1/2 inches (305.1mm) wide. If using foam, cut the material 41 ¼ inches (1039mm) by 11 inches wide (279mm) by 1 ½ inches (381mm) high. Cut a piece of film cover material (if used) large enough to cover the core material. It is permissible to staple the film cover at the ends, as they are not exposed to the radiant heat source. A piece or pieces of an inorganic/inert material such as Kaowoo or Marinit board may be placed in the bottom of the sliding platform holder if the sample is not thick enough to be level with the top of the sliding platform. The specimen thickness must be of the same thickness as installed in the airplane.

(d) Specimen Conditioning. The specimens will be conditioned at 70 +/- °F (21 +/- °C) and 55%+/- 10% relative humidity for a minimum of 24 hours prior to testing.

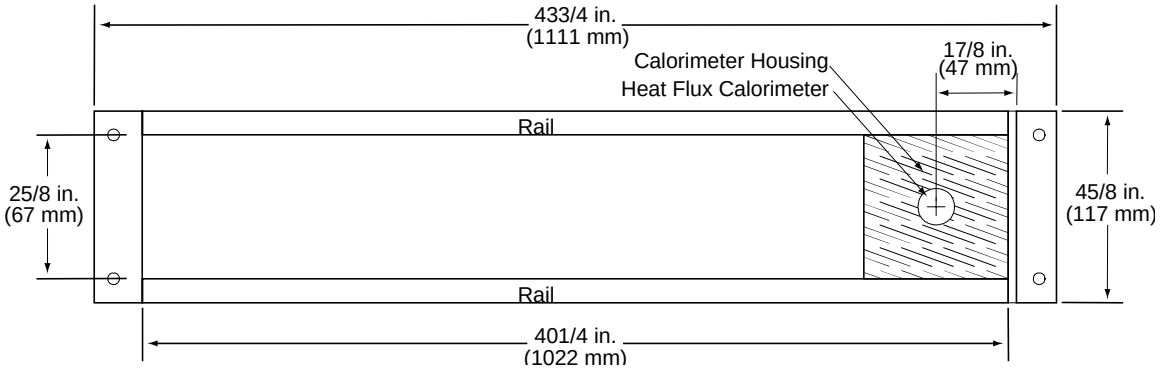
(e) Calibration.

(1) With the sliding platform out of the chamber, install the rail fixture. Push the platform back into the chamber, install the calorimeter (in its housing), and move the calorimeter to the "zero" position (figure 5). Close the bottom door located below the sliding platform. The centerline of the calorimeter is 1 7/8 inches (46mm) from the end of the sliding platform. This will be the "zero" position. The distance from the center of the calorimeter to the radiant panel surface at this point is 7.5 inches +/- 1/8 (191 mm +/- 3).

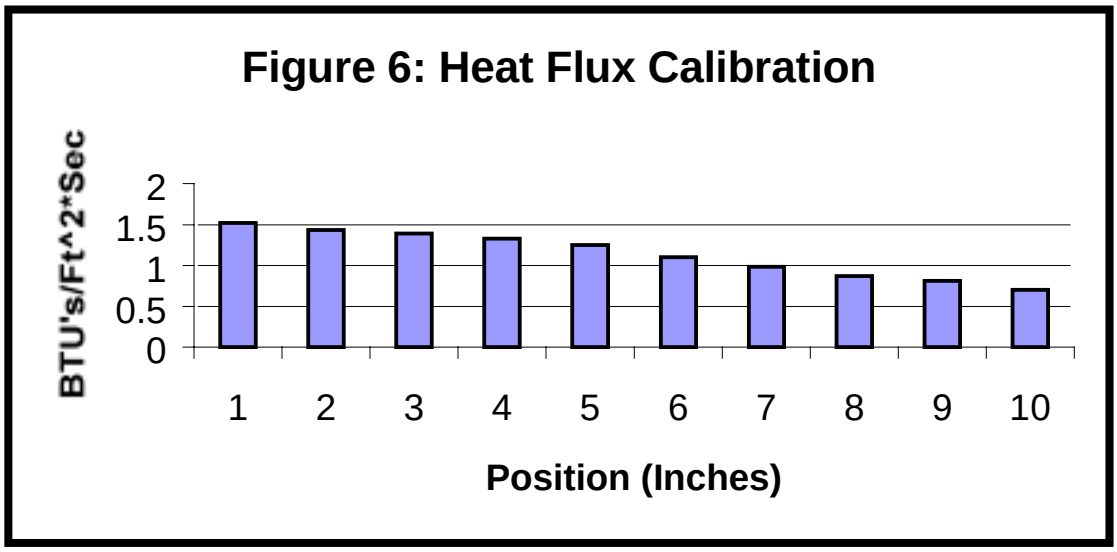
(i) Prior to igniting the radiant panel, ensure that the calorimeter face is clean and that there is water running through the calorimeter.

(2) Ignite the panel. Adjust the fuel/air mixture to achieve 1.5 BTUs/ft^2 –second +/-0.025 BTUs/ft^2 -second (1.9 Watts/cm^2 +/-0.025 Watts/cm^2) at the "zero" position. Allow the unit to reach steady state (this may take up to 1 hour). The pilot burner is off during this time. The temperature as measured by the thermocouple closest to the panel (forward) is approximately 110 °F (60 °C). The temperatures recorded by thermocouples 2 and 3 (thermocouple 3 located in chimney) are approximately 43 °F (23 °C) and 30 °F (13 °C), respectively.

Figure 5: Calorimeter Rail



(3) After steady-state conditions have been reached, move the calorimeter 2 inches (51mm) from the "zero" position and record the heat flux. Allow a minimum of 30 seconds at each position for the calorimeter to stabilize. Record at least 10 positions. (Figure 6 depicts a calibration profile.)



(4) It is not necessary to run a full heat flux calibration (minimum of 10 positions) each time the chamber is powered on. It is required that a heat flux measurement be taken at the "zero" position at the start of the test period (e.g., each morning) to ensure that the 1.5 BTU/ft^2 -second (1.9 Watts/cm^2) requirement be met. A full calibration should be run periodically.

(5) Open the bottom door, pull out the sliding platform, and remove the calorimeter and rail fixture.

(f) Test Procedure.

(1) Ignite the pilot burner. Ensure that it is at least 2 inches (51mm) above the top of the platform. The burner must not contact the specimen until the test begins.

(2) Place the test specimen in the sliding platform holder. Ensure that the test sample surface is level with the top of the platform. At "zero" point, the specimen surface is 7 ½ inches +/-1/8 (191mm +/-3) below the radiant panel.

(3) With film/fiberglass assemblies, it may be necessary to puncture small holes in the film cover to purge any air inside. This allows the operator to maintain the proper test specimen position (level with the top of the platform). The holes should be made in the sides and/or the corners of the test specimen using a needle-like tool.

(4) Place the retaining frame and the securing frame over the test specimen.

(5) A small mark should be placed on the "zero" point.

(6) Immediately push the sliding platform into the chamber and close the bottom door.
(7) Bring the pilot burner flame into contact with the center of the specimen such that the center line of the flame impinges on the "zero" point and simultaneously start the timer. The burner flame impinges the sample at an angle of approximately 20 degrees with the horizontal (front of the sliding platform).
(8) Leave the burner in position for 15 seconds and then remove to a position at least 2 inches (51mm) above the specimen.

(g) Report.
(1) Identify and describe the specimen being tested.
(2) Report any shrinkage or melting of the test specimen.
(3) Report the Burn length
(4) Report Extinguishing Time

(h) Requirements.
(1) During burner application, no flaming is allowed to propagate more than 2 inches (50.8mm) along the sample (to the left in figure 1) of the centerline of the flame.
(2) There shall be no flaming of the test sample after pilot burner removal.